



CITY COUNCIL OF PRETORIA

THIRTY-FOURTH

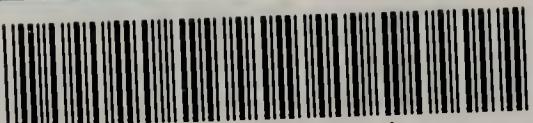
ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1937-1938



22501419024

City Council of Pretoria.



*With the Compliments
of the
Medical Officer of Health.*

Stadsraad van Pretoria.



*Met Komplimente
van die
Mediese Gesondheidsbeampte.*

POSBUS 234.
PRETORIA.



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INTRODUCTORY LETTER

TO HIS WORSHIP THE MAYOR
AND MEMBERS OF THE CITY COUNCIL OF PRETORIA.

YOUR WORSHIP, LADIES AND GENTLEMEN,

I have the honour to present to you the Thirty-fourth Annual Report on the activities of the Health Department during the year ended 30th June, 1938.

The Report is a record of all important matters concerning the health of the City. I am pleased to be able to state from our Vital Statistics that, although the Death Rate is slightly higher than last year's, these figures reveal conditions which are very satisfactory.

Again the incidence of Typhoid Fever is only 4 higher than the record low figure established last year.

Non-European Infantile Mortality Rate figures are high, but as explained in my last year's Report, they are so inaccurate that very little inference can be drawn from them.

The special feature in this year's Report is the control of mosquito breeding in this Area.

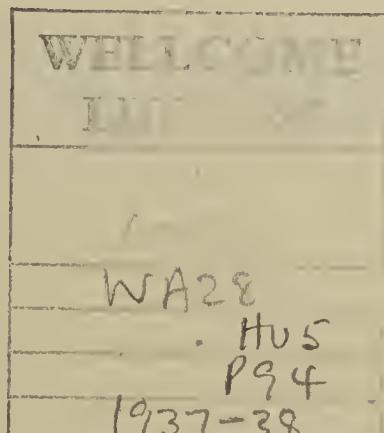
The Department has accomplished a great deal during the year, and the quality of the work done has been entirely satisfactory. This again is due to that same loyal, energetic and efficient co-operation which I have received from every member of the staff. For this I am most grateful. The Department owes a great deal to the assistance rendered by the public, the Press, heads and sub-heads of other Departments of this Municipality.

I have to thank Your Worship and members of the City Council for the assistance extended to me, and in particular do I wish to express my appreciation of the support given to me by the Chairman (Councillor J. Patmore) and members of the Public Health Committee.

I have the Honour to be
Ladies and Gentlemen,

Your obedient servant.

H. NELSON,
Medical Officer of Health.



PUBLIC HEALTH COMMITTEE.

Councillor J. Patmore (*Chairman*).
 Councillor Mrs. M. M. Curson.
 Councillor J. Parker.
 Councillor H. F. Jacobs.
 Councillor P. M. Vanleer.

STAFF OF THE PUBLIC HEALTH DEPARTMENT AS AT 30th JUNE, 1938.

H. NELSON, M.A., M.B., Ch.B., B.A.O., D.P.H.	Medical Officer of Health.
T. LÖTTER, M.B., Ch.B., L.R.C.P. & S., L.R.F.P.S., D.P.H.	Asst. Medical Officer of Health.
A. PIJPER, M.D., D.Sc.	Bacteriologist (part time).
R. E. W. DICKS, M.B., Ch.B.	Resident Medical Officer (Isolation Wards).
I. P. MARAIS, B.Sc. Agric., B.V.Sc., Dr. Med. Vet.	Veterinary Officer.
W. G. GRAHAM, Cert.R.S.I., Meat and Other Foods, San. Science (Scot.) . .	Chief Health Inspector.
F. T. E. NICHOLSON, Cert. R.S.I. and Meat and Other Foods, Cert. (Sch. of Agric. Dairying, Natal)	Senior District Health Inspector.
H. M. DE VAAL, B.Sc., Applied and Industrial Chemistry	Municipal Chemist and Analyst.
G. J. STANDER, M.Sc., Dip. Analytical Chemistry	Asst. Municipal Chemist and Analyst.

SENIOR HEALTH INSPECTORS.

K. C. J. LUCOUW (Infectious Diseases), Cert.R.S.I.
J. B. FISHER (Dairies), Nat. Dip. of Dairying (Scot. and Eng.).
L. E. THOMAS (Dairies), Cert.R.S.I., Meat and Other Foods, Trop. Hyg., Adv. Knowledge (M.R.San.I.), (M.R.I.P.H.H.), Adv. Tech. Bldg. Cons. and Drawing.
J. L. COETZEE (Abattoir), Cert. Meat and Other Foods.
A. VELTHUYSEN (District), Cert.R.S.I.

FIRST GRADE HEALTH INSPECTORS.

W. G. FUNSTON, Cert. R.S.I., Meat and Other Foods.
R. BLOEMINK, Cert. R.S.I., Meat and Other Foods.
R.J. DAVIS, Cert. R.S.I., San. Science, Meat and Other Foods, A.M.I.S.E., (M.R.I.P.H.H.), (M.R.San.I.), Nat. Tech. Cert.
M. C. WILLEMS (Abattoir), Cert. R.S.I., Meat and Other Foods.
M. VAN R. LEE, Cert. R.S.I., Meat and Other Foods.
E. J. JAMMINE, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.

SECOND GRADE HEALTH INSPECTORS.

R. O. R. CARRUTHERS, Cert. R.S.I.
J. A. HOTINE, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.
L. SILBERMAN, Cert. R.S.I.
W. SCOTT (Abattoir), Cert. R.S.I.

THIRD GRADE HEALTH INSPECTORS.

N. VORSTER.	D. W. BURGESS.
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CLERICAL STAFF.

L. DRYSDALE, Cert. R.S.I. (Senior Clerk).
T. W. GARDNER (Clinic Clerk).
F. J. H. STOCKWELL, Cert. R.S.I. (Junior Clerk).
I. M. MALLETT (Senior Typist).
T. I. DAVIDSON (Junior Typist).
E. I. BENTLEY (Junior Typist).

CLINIC ATTENDANT AND AMBULANCE ASSISTANT.
V. J. BESTER.

RATCATCHERS.

E. MITCHLEY. J. BRODIE.

ANTI-MALARIAL WORKERS.

C. J. MYBURGH. H. LUBBE.

HEALTH VISITORS.

S. HEATHER (Senior), Cert. S.A. Medical Council (Gen. & Midwif.), Cert. R.S.I.,
Cert. Sch. Nursing.
H. M. AUSTIN, Cert. S.A. Medical Council (Gen. & Midwif.), Cert. Sch. Nursing.
F. L. ROSS (Clinic Sister and T.B. Visitor), Cert. S.A. Medical Council (Gen. &
Midwif.), Cert. Sch. Nursing.
C. KEENAN (Clinic Sister and T.B. Visitor), Cert. S.A. Medical Council (Gen. &
Midwif.), Cert. Sch. Nursing and Mothercraft.
G. S. J. PRETORIUS, Cert. S.A. Medical Council (Gen. & Midwif.), Cert. Sch.
Nursing and Mothercraft.
M. G. VAN WYK, Cert. S.A. Medical Council (Gen. & Midwif.), Cert. Sch. Nursing
and Mothercraft.

HEALTH VISITORS (NON-EUROPEAN).

R. HERMANUS, Certificated Midwife.
G. MSIMANG, Cert. General and Midwifery.
D. F. THOMAS, Cert., General and Midwifery.
A. JEKEGA, Cert., General and Midwifery.

NATIVE MALE NURSE.

JACOB MOHOHLO.

PUBLIC CONVENIENCES AND WASH HOUSE ATTENDANTS.
SEVEN EUROPEANS. ONE NON-EUROPEAN.

ADDITIONAL MEDICAL STAFF (CLINICS AND ISOLATION WARDS).
PART-TIME STAFF.

DR. E. A. LEVISEUR	Child Welfare Clinics.
DR. D. J. THERON	Ante-Natal Clinics.
DR. S. BEHR	Special Diseases Clinics.
DR. E. A. GRUNBERGER and	Ear, Nose and Throat Specialists.
DR. F. BEKKER	
DR. G. VAN DYK	Surgical Specialists.
DR. H. J. BESSELAAR	
DR. B. EPSTEIN	Native Medical Services
DR. J. RUDOLPH	
DR. B. SHAWSIN	
DR. A. J. BAIRD	

STAFF MATTERS.

Dr. J. G. Bekker, Veterinary Officer, resigned his position in January, 1938,
and was replaced by Dr. I. P. Marais, who was a Research Officer at Onderstepoort.

It is with regret that I have to record the death of Inspector H. W. Gregory.
He served the Council faithfully for twenty-six years up to the time of his demise
on 1st February, 1938.

CITY COUNCIL OF PRETORIA

THIRTY-FOURTH ANNUAL REPORT OF THE Medical Officer of Health

CLIMATIC DATA.

Latitude : 25 degrees, 44 minutes, 3 seconds East.

Longitude : 1 hour, 52 minutes, 48 seconds South.

Mean Altitude : 4,480 feet.

Temperature : (Statistics kindly supplied by the Chief Meteorologist, Pretoria).

	Mean Max.	Mean Min.	Highest Reading.	Lowest Reading.	Humidity Mean at 8.30 a.m.	Rainfall. Inches.	Days.
1937.							
July	65.7	35.4	73.3	29.3	68.0	—	—
August	74.6	71.1	79.6	34.3	59.0	—	—
September	76.5	50.2	89.5	34.0	55.0	0.71	4
October	82.3	56.3	92.2	46.5	58.0	2.71	7
November	88.2	60.59	96.1	52.7	55.3	0.56	6
December	79.4	57.5	90.6	51.0	76.0	6.61	21
1938.							
January	83.6	62.7	90.6	58.1	69.3	5.66	12
February	82.6	59.8	89.8	51.7	68.3	1.57	8
March	84.8	57.5	89.3	52.7	67.0	1.55	7
April	77.7	52.65	87.2	43.2	74.43	3.51	11
May	74.4	44.82	83.0	35.2	72.06	0.36	2
June	68.41	40.7	75.6	33.8	75.23	0.07	2

AREA OF MUNICIPALITY.

The area of Pretoria and suburbs, inclusive of Town Lands, is 60.37 square miles. The town is built on and between three parallel ranges of quartzite hills running East and West, the soil in the valleys being largely shale.

ANNUAL RATEABLE VALUES.

		1936-7.	1937-8.
Land .. ..	.. .. .. .. ..	£4,918,705	£5,792,075
Buildings .. .. .. .. ..	.. .. .. .. ..	12,789,760	14,558,080
TOTALS	.. .. .. .. ..	£17,708,465	£20,350,155

The values of unrateable land and buildings were £1,559,155 and £6,001,590 respectively.

The total values therefore were :—

		1936-7.	1937-8.
Land .. ..	.. .. .. .. ..	£6,287,015	£7,351,230
Buildings .. .. .. .. ..	.. .. .. .. ..	18,675,640	20,559,670
		£24,962,655	£27,910,900

For the year under review, the rates imposed were 6d. per £ on land and $\frac{1}{2}$ d. per £ on buildings, plus a sewerage rate of $\frac{1}{2}$ d. per £ on rateable land and buildings within the sewered area.

POPULATION exclusive of inmates of Institutions :—

		Census, May, 1936.	Estimated at 31st December, 1937.
European		67,041	70,200
Native		33,000	34,280
Asiatic		2,772	2,870
Eurafrican		2,783	2,850
			<u>110,200</u>

Population inclusive of Institutions :—

		Estimated at 31st December, 1937.
European	.. .. .. .. .. .. ..	71,600
Non-European	.. .. .. .. .. .. ..	41,400
		<u>113,000</u>

THE PRINCIPAL VITAL STATISTICS FOR THE YEAR, corrected for outward transfers, are :—

	European.	Native.	Asiatic.	Eur-african.	All Non-Europeans.	TOTAL.
Population	70,200	34,280	2,870	2,850	40,000
Birth Rates	24·20	7·15	52·96	28·42	11·95
Death Rates	8·73	11·64	18·47	16·84	12·5
Infantile Mortality Rates per 1,000 live births	63·57	457·14	105·26	209·88	303·35
Percentage of illegitimate to live births	2·06	44·08	1·97	41·97	29·7
Death rates from Tuberculosis, all forms, per 1,000 population	0·11	0·72	0·34	1·40	0·75
						0·34

BIRTHS.

The following births were registered in Pretoria during the year. (Figures for previous year in brackets.) :—

	Europeans.	Natives.	Asiatics.	Eur-africans.	Total Non-Europeans.
Local Births	1,699 (1,633)	245 (211)	152 (149)	81 (89)
Births where mothers were not residents of Pretoria	339 (292)	—	—	108 (81)
Local Illegitimate Births	35	105	3	34
Stillbirths	38 (36)	—	—	41 (48)

BIRTH RATES.

European	.. .. .. .. ..	24·20 (23·94)
Native	.. .. .. .. ..	7·15 (6·30)*
Asiatic	.. .. .. .. ..	52·96 (53·21)
Eurafrican	.. .. .. .. ..	28·42 (31·79)
All Non-European	.. .. .. .. ..	11·95 (11·48)

* This figure is inaccurate and unreliable owing to incomplete registration of births.

Rates of natural increase, being the excess of births over deaths in proportion to population, are as follows :—

European	.. .. .. .. ..	15·47 (15·92) per 1,000
Asiatics	.. .. .. .. ..	34·49 (32·5) per 1,000
Eurafrican	.. .. .. .. ..	11·58 (15·71) per 1,000

Amongst Natives there were 154 more deaths than births recorded, and, as mentioned in last year's report, this figure is definitely inaccurate owing to non-registration of births.

ILLEGITIMACY accounted for 2·06 per cent. of the total European births, which is lower than last year's figure (2·94), an already exceedingly low rate. The percentage of illegitimates to total births in Non-Europeans is 29·7.

DEATHS.

(Figures for 1936/7 in brackets.)

	Europeans.	Natives.	Asiatics.	Eur-africans.	Total Non-Europeans.
LOCAL DEATHS—					
(All ages)	613 (547)	399 (323)	53 (58)	48 (45)	500 (426)
Deaths of persons not being local residents	236 (258)	—	—	—	448 (392)
TOTAL DEATHS	849 (805)	—	—	—	948 (818)

These "non-local" deaths occurred at :—

	Pretoria and other Hospitals.	Mental Asylum.	Leper Asylum.	Prisons.	Visitors.
Europeans	151	50	13	4	18
Non-Europeans	262	59	81	32	14

DEATH RATES.

		1937/8	1936/7
European .. ..	.. ..	8·73	8·02
Native .. ..	.. ..	11·64	9·64
Asiatic .. ..	.. ..	18·47	20·71
Eurafrican .. ..	.. ..	16·84	16·07
All Non-Europeans .. ..	.. ..	12·5	10·90
TOTAL for all races .. ..	.. ..	10·1	9·07

INFANTILE MORTALITY.

	Europeans.	Natives.	Asiatics.	Eur-africans.	Total Non-Europeans.
LOCAL DEATHS	108 (86)	112 (95)	16 (16)	17 (10)	145 (121)
Deaths of infants whose mothers had come to the City for confinement, or infants who were brought in suffering from the illness which caused death	27 (31)	—	—	—	26 (23)
TOTAL INFANT DEATHS	135 (117)	—	—	—	171 (144)

Europeans.—The infantile mortality rate for the year is 63·57 (52·66).

Causes of death were as follows :—

		1937/8	1936/7
Congenital causes .. ..	.. ..	10 (rate 5·88)	11 (rate 6·73)
Diarrhoeal disease .. ..	.. ..	16 (rate 9·41)	17 (rate 10·41)
Bronchitis and Pneumonia .. ..	.. ..	28 (rate 16·48)	19 (rate 11·63)
Prematurity .. ..	.. ..	32	19
Other Diseases .. ..	.. ..	22	17
		Infectious Diseases	3
TOTAL .. ..	.. ..	<u>108</u>	<u>86</u>

There were no European infant deaths from notifiable infectious diseases.

The European infantile mortality rate is somewhat higher than the figure recorded last year, but it must be appreciated that a rise of 11 per thousand in a comparatively small population like that of Pretoria is of no great significance.

The diarrhoeal diseases figure is actually lower this year than last year.

It will be observed that the main cause of the increased death rate is the large number of premature births. There has also been an increase in deaths due to such diseases as bronchitis and pneumonia. When these facts are taken into consideration, it will be found that the health of the infants in Pretoria is satisfactory, and there is ample evidence that the good work of the Child Welfare Clinics,

the Health Visitors and the various branches of the Child Welfare Society is materially benefiting the City. Another important factor in this connection is the excellence of the sanitary conditions existing in the City, due in very great measure to the efficient and untiring efforts of the Health Inspectors.

Non-Europeans.—The infantile mortality rate for the year is 303·35 (269·49).

Causes of death were as follows :—

				1937/8	1936/7
Congenital causes	..	..	..	10	7
Diarrhoeal disease	..	..	..	35	33
Bronchitis and Pneumonia	..	..	..	56	45
Infectious diseases	..	..	..	3	1
Prematurity	..	..	..	25	17
Other diseases	..	..	..	16	18
				145	121
				—	—

The causes of deaths amongst the Non-European infants reveal that apart from diarrhoeal diseases, there were only three deaths from infectious disease—one from Tetanus Neonatorum and two from Pulmonary Tuberculosis. Diarrhoeal disease, bronchitis and pneumonia were the chief causes of death. Here, as in Europeans, prematurity was in no less than twenty-five cases given as the cause of death.

NATIVES :	Marabas Location.		Bantule Location.		Town.	
	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
Births and Infant Deaths	118	47	67	48	56	17
ASIATICS :			Asiatic Location.		Town.	
Births and Infant Deaths	..	..	Births.	Deaths.	Births.	Deaths.
			107	13	50	3
EURAFRICANS :			Cape Location.		Town.	
Births and Infant Deaths	..	..	Births.	Deaths.	Births.	Deaths.
			68	13	12	4

Again I wish to refer to my remarks in last year's Report in connection with the inaccuracy of the infantile mortality rate figure. For the reasons given last year, this figure is of no value in determining the health of our Non-European infants, and is merely mentioned for the purpose of continuing the records.

The question of the inaccuracy of Native infantile mortality rates was the topic of a lively discussion at the Health Conference in Johannesburg during February, 1938. It is the concensus of opinion that the remarks made in my previous Report are correct. A further proof of the inaccuracy of these returns will be found when the birth and death rate figures for Marabas and Bantule locations are studied. It will be noted that in Marabas there were 118 births and 47 deaths notified, whereas in Bantule there were 67 births notified and 48 deaths. At first glance this would signify that very much worse conditions must exist in Bantule than in Marabas. In fact, however, the very opposite is the case; the houses and conditions under which the Natives live in Bantule are far better than those existing in Marabas. Bantule, however, is situated somewhat further out of town than Marabas, and obviously the lack of notifications of births from Bantule is the only cause for the higher infantile mortality rate in that area.

No correct indication of the health of the Native infants can be arrived at until notification of births and deaths reaches some degree of accuracy.

DEATHS AT AGE 1-5 YEARS.

Europeans.—Thirty-seven deaths were recorded during this age period, due to the following causes :—

Infectious diseases	..	..	..	..	3
Septicaemia	..	..	..	..	1
Diseases of the nervous system			..	..	2
Diseases of the heart	..	..	..	..	2
Diseases of the respiratory system			..	..	12

Diarrhoeal diseases	..	..	..	..	8
Intestinal obstruction	..	..	..	..	2
Disease of kidneys and adnexa	..	..	..	..	2
Disease of the skin	..	..	..	..	1
Accidental burns	..	..	..	..	3
Homicide	..	..	..	..	1
TOTAL	..	..	..	..	37
					—

Non-Europeans.—Sixty-eight deaths were recorded, as follows :—

Diseases of nutrition	..	..	..	..	5
Diseases of nervous system	..	..	..	..	1
Disease of circulatory system	..	..	..	..	1
Diseases of respiratory system	..	..	..	..	31
Diseases of digestive system	..	..	..	..	25
Congenital debility	..	..	..	..	1
Other diseases of early infancy	..	..	..	..	2
Accident	..	..	..	..	2
TOTAL	..	..	..	..	68
					—

Asiatics.—Six deaths occurred, as follows :—

Broncho-pneumonia	..	..	..	..	4
Disease of heart	..	..	..	..	1
Nephritis	..	..	..	..	1
TOTAL	..	..	..	..	6
					—

Eurafricans.—Four deaths occurred, as follows :—

Accident	..	..	..	..	2
Diphtheria	..	..	..	..	1
Broncho-pneumonia	..	..	..	..	1
TOTAL	..	..	..	..	4
					—

It will be noticed in all these deaths that there are practically no deaths from notifiable infectious diseases. Intestinal diseases and diseases of the respiratory system were the major causes in all races.

DEATHS IN PERSONS OF FIVE YEARS AND OVER.

The principal causes of death were :—

	1937/38.	EUROPEAN.		NON-EUROPEAN.	
		Yearly Average for 5 years.	1937/38.	Yearly Average for 5 years.	1937/38.
Cancer	51	46·8	5
Diseases of the heart	117	82·4	61
Pneumonia, Bronchitis and Broncho-pneumonia	66	53·0	72
Influenza	5	8·8	1
Typhoid Fever	2	5·8	4
Appendicitis	4	3·2	—
Tuberculosis (open)	8	11·4	30
Diabetes	4	7·4	—
Apoplexy	30	28·0	7
Diseases of the kidneys	19	23·0	4
Diseases of the arteries	13	14·0	4
Diseases of the liver	7	10·0	7
Diseases of parturition	—	6·8	—
Old age	5	13·6	2
Suicide	7	7·4	—
Accident	31	19·4	28
					15·4

A detailed description is given hereunder in connection with the causes of deaths in persons over five years of age. From the above table, however, it will be noted that diseases of the heart took the greatest toll in Europeans and diseases of the respiratory system was the major cause of death in Non-Europeans.

Pneumonia, bronchitis and broncho-pneumonia caused the second greatest number of deaths in Europeans. Both these figures in the two races are far in excess of those of last year, and are responsible for the slight increase in the death rate.

Cancer is the next highest for Europeans. There is, however, a slight decrease compared with last year, both in Europeans and Non-Europeans, although, in the latter section of the population, malignancy does not play so great a part.

In Non-Europeans, Tuberculosis caused no less than 30 deaths; last year's figure was 31. This disease in Europeans was the cause of 8 deaths this year as compared with 10 last year. In connection with Tuberculosis in Non-Europeans, one reports regrettably that most of these cases were only notified just prior to death or came to the notice of the Department through the death certificate. This is further discussed under "Infectious Diseases." It is pleasing to record that whereas there were 13 deaths due to diseases of parturition last year, this year's figure is nil.

The number of deaths from accidents has increased in Europeans from 9 last year to 31 this year, and in Non-Europeans from 11 to 29, the major cause of this increase being motor accidents. This is accounted for by the steady increase in the number of motor vehicles on the road to-day and the excessive speed at which these high-powered cars are driven. The careless driver who lacks road courtesy and takes a chance, contributes to this heavy toll. The jay walker or careless pedestrian is a menace to himself as well as to others.

Whilst one wishes to compliment the Traffic Department of the City on its courtesy and efficiency, it can readily be seen that this Department needs an augmentation of its staff in order to control this rising death rate.

(In all the following tables, figures for 1936/37 are shown in brackets.)

1. CANCER.

Europeans.—51 (55) Death rate per 1,000 population, 0·73 (0·81).

Site of disease :

Digestive organs and peritoneum	..	..	..	..	..	23
Respiratory tract	..	..	..	..	..	8
Uterus	..	..	..	..	..	2
Other female genital organs	..	..	..	..	..	1
Breast	..	..	..	..	..	4
Male genito-urinary organs	..	..	..	..	..	3
Various other organs	..	..	..	..	..	10
TOTAL	..	..	..	..	..	51
						=

Death age :

Under 40 years.	40—50	50—60	60—70	70—80	Over 80	TOTAL.
6	6	13	9	12	5	51

Non-Europeans :

Natives : 1 case of cancer of digestive organs.

Asiatics : Nil.

Eurafricans : 1 case of cancer of digestive organs.

3 cases of cancer of other organs.

2. DISEASES OF THE HEART.

Europeans : 117 (96). Death rate per 1,000 population, 1.66 (1.41).

Non-Europeans : 61 (40). Natives, 48 ; Asiatics, 3 ; Eurafricans, 10.

3. BRONCHITIS, BRONCHO-PNEUMONIA, PNEUMONIA.

Europeans : 66 (45).

Non-Europeans : 72 (48). Natives, 67 ; Asiatics, 4 ; Eurafricans, 1.

4. INFLUENZA.

Europeans : 5 (6).

Non-Europeans : 1 (2). This death occurred in a Native.

5. TYPHOID FEVER.

Europeans : 2 (1).

Non-Europeans : 4 (5). This disease is fully discussed under "Infectious Diseases."

6. APPENDICITIS.

Europeans : 4 (2).

Non-Europeans : Nil (1).

7. TUBERCULOSIS.

Europeans : 8 (10).

Non-Europeans : 39 (31). Natives, 34 ; Asiatics, 1 ; Eurafricans, 4. For full details regarding this disease, see under "Infectious Diseases."

8. DIABETES.

Europeans : 4 (7).

Non-Europeans : Nil (nil).

9. APOPLEXY.

Europeans : 30 (30).

Non-Europeans : 7 (8). Natives, 6 ; Eurafricans, 1.

10. DISEASES OF THE KIDNEYS.

Europeans : 19 (21). 14 Deaths were due to nephritis and 5 to other diseases of the kidneys.

Non-Europeans : 4 (3) Nephritis accounted for 3 deaths and other disease of kidneys 1. (All in Natives.)

11. DISEASES OF THE ARTERIES.

Europeans : 13 (19).

Non-Europeans : 4 (2). All in Natives.

12. DISEASES OF THE LIVER.

Europeans : 7 (7).

Non-Europeans : 7 (4). Natives, 5 ; Asiatics, 2.

13. DISEASES OF PARTURITION.

Europeans : Nil (8).

Non-Europeans : Nil (5).

14. OLD AGE.

Europeans : 5 (9). 1 was aged 73, 2 between 80 and 90 years, and 2 over 90.

Non-Europeans : 2 (nil)—both in Natives, aged 86 and 90 respectively.

15. SUICIDE.

Europeans : 7 (4). 3 from poisoning, 1 by hanging, 3 by firearms.

Non-Europeans : Nil (1).

16. ACCIDENT.

Europeans : 31 (9).
Non-Europeans : 29 (11). } Caused as follows :—

			European.	Native.	Asiatic.	Eurafrican.
Firearms	..	..	..	—	1	—
Asphyxia	..	..	..	1	1	—
By cutting or piercing instruments	..	..	..	1	1	—
In quarries	..	..	..	—	1	—
By machinery	..	..	..	2	1	—
By railways	..	..	..	—	3	—
By motor vehicles	..	..	..	19	8	—
By motor cycle	..	..	..	1	2	—
By other crushing	..	..	..	1	—	—
By fall	..	..	..	2	4	1
By neglect	..	..	..	—	1	—
By lightning	..	..	..	1	—	—
By burns	..	..	..	—	—	3
By other accidents of violence	..	..	..	3	1	—
			—	—	—	—
			31	24	2	3
			—	—	—	—

DETAILS OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR. 1937-1938.

(Note.—All figures for 1936-37 are shown in brackets.)

1. TYPHOID FEVER.

This disease was very fully discussed in last year's Report when a graph was drawn showing the steady decline of typhoid fever in Pretoria over the past twenty-seven years. Last year's figure of 42 local cases was by far the lowest ever recorded, and this year's number of 46 is indeed still very satisfactory.

		Europeans.	Non-Europeans.
Local cases ..	.. .. ..	27 (21)	19 (21)
Imported cases ..	.. .. ..	30 (48)	26 (28)
		—	—
		57 (69)	45 (49)
		—	—

There were 2 European and 4 Non-European deaths during the year. The attack and death rates amongst residents are :—

		Europeans.	Non-Europeans.
Attack rate ..	.. .. ..	0·38 (0·308) per 1,000 population.	0·47 (0·54) per 1,000 population.
Death rate ..	.. .. ..	0·028 (0·015) per 1,000 population.	0·1 (0·128) per 1,000 population.

The case mortality rates are : 7·4 (4·76) in Europeans and 21·05 (23·81) in non-Europeans.

Extensive investigation was instituted in every case in order to trace the source of infection. C.F. tests and stool and urine examination of all suspected carriers were undertaken.

Of the European cases, 24 were treated at the Isolation Wards and 3 at their own homes. All the non-Europeans were treated at the Isolation Hospital.

Three of the European cases occurred at one boarding establishment ; the first case was probably infected whilst out picknicking, outside Pretoria, and the other two were secondary cases.

In another instance, two cases occurred at a local hotel, one a European and the other a non-European. Blood examinations were done of the whole staff. One of the non-Europeans gave a positive C.F. Further stool and urine examinations of this case were negative.

Two non-European cases occurred at a market gardener's farm at Eloffsdal, one was most probably secondary to the other. All the other Natives on the farm

were tested for the possible carrier state and one of them was removed to the Typhoid Fever Carrier Camp as a suspect carrier.

Besredka Pills.

During the year approximately 853 Besredka Immunising Pills were issued.

The following table shows the results of tests undertaken in connection with query typhoid fever carriers :—

		1936-37	1937-38
No. of Typhoid C.F. tests carried out in connection with suspect carriers ..		25	74
No. of these tests reported positive		13	6
No. of these tests reported negative		12	68
No. of stool examinations for <i>B. Typhosus</i>		10	11
No. of stool examinations from which <i>B. Typhosus</i> recovered		—	—
No. of urine examinations for <i>B. Typhosus</i>		10	11
No. of urine examinations from which <i>B. Typhosus</i> recovered		2	—

There were therefore two new Urinary Carriers discovered during the year.

2. TYPHUS FEVER.

There were no cases of Typhus Fever notified.

3. UNDULANT (MALTA) FEVER.

There was one local case in a European of advanced age and notification was only received at death.

4. CEREBRO-SPINAL MENINGITIS.

		Europeans.	Non-Europeans.
Local cases		4 (14)	5 (10)
Imported cases		3 (5)	4 (10)
		<hr/> <hr/>	<hr/> <hr/>
		7 (19)	9 (20)

One European and 3 non-Europeans died from the disease.

All the cases were very carefully investigated. They were all sporadic and unconnected with one another.

It is gratifying to report that, whereas the total number of local cases last year was 24, only 9 cases of cerebro-spinal meningitis occurred in Pretoria this year.

5. TUBERCULOSIS.

		Europeans.	Non-Europeans.
Local cases		14 (13)	50 (50)
Imported cases		24 (19)	69 (50)
		<hr/> <hr/>	<hr/> <hr/>
		38 (32)	119 (100)

THE TYPES OF THE DISEASE WERE :

		Pulmonary.	Spinal.	Glandular.	Abdominal.
European		10	—	4	—
Non-European		46	2	1	1

Of the 64 cases notified, 40 died, 36 in Pretoria and 4 outside Pretoria. 18 cases were notified just prior to or immediately after death. 22 cases died within seven months after notification. Four of the cases gave familial histories. Two were suffering from Miners' Phthisis. Five non-Europeans gave evidence of having been in contact with other cases suffering from Tuberculosis.

It is interesting to record here that secondary Tuberculosis cases in European homes are not common. Secondary cases have occasionally occurred in non-

European families, and this can only be attributed to overcrowding in some parts of the locations and lowered resistance from under-nourishment. Very soon the Council will embark on the laying out of the new Native location, which will be a great factor in the reduction of the incidence of this disease.

It is evident that a large number of Tuberculosis cases are only notified just prior to or at death. I again wish to stress that this is not due to lack of co-operation from the medical practitioners in Pretoria, indeed the assistance which the Department receives from them in connection with early notification of all infectious diseases is invaluable and greatly appreciated. The cause for this late notification lies in the fact that the European cases do not come under medical care until very late in the disease. The initiative to seek treatment when ill rests with the patient himself, and the only feasible remedy lies in the education of the public as to the common symptoms and infectivity of this disease.

Through Tuberculosis clinics and health visiting services, the contacts of every case are followed up, examined and treated. Where for some reason, the infective case has to remain at home, full instructions, written and verbal, are given to the patient as to the mode of living and the disposal of sputum and infective material, so as to protect other members of the community.

Every effort is made by the Department to reduce the incidence of this disease. The infective cases are treated in the Isolation Wards until they can be accommodated at a Sanatorium.

Where there is overcrowding, portable Tuberculosis huts are supplied. Through paying weekly visits, the Clinic Sister and Clinic Clerk become thoroughly conversant with the home conditions of every case.

All cases are encouraged to attend the Tuberculosis clinics, where they are examined regularly and supplied with the necessary medicines.

In the Report for 1934-1935, a full description was given of the function and construction of these small portable huts. They are erected for the purpose of accommodating patients in their own yards. The hut is placed a little distance from the home of the patient to ensure isolation.

A further two huts were constructed during this year at a cost of £35 each, of which one-half is refundable by the Union Health Department.

These huts serve a very useful purpose in the prevention of the spread of the disease and allow of the treatment of ambulatory cases at home through the Department's Anti-Tuberculosis clinics.

INDIGENT TUBERCULOTICS.

Towards the end of 1937 the Department received notice from the Government that financial support was now available for the relief of indigent Tuberculosis. This is specially intended to assist persons during the time they cannot undertake employment owing to ill-health.

The scheme is applicable to indigent Europeans, Indians and Coloureds, whose annual income in the case of Europeans does not exceed £66, and in that of Indians and Coloureds, does not exceed £33. The grants shall be of such amount, as having regard to circumstances, the Secretary for Social Welfare deems reasonable and sufficient, but shall not exceed £30 per annum in the case of Europeans or £24 in the case of Indians or Coloured persons. There are many further statements qualifying this grant, but these need not be mentioned here.

It is hoped that this scheme will be extended to include Natives in the near future.

TUBERCULOSIS CONTACTS.

The following survey was undertaken during the course of the year in connection with the contacts of Tuberculosis cases. These contacts, 92 in all, of which 58 are Europeans and 34 non-Europeans, have been examined (and are still being kept under observation) with a view to excluding the disease or detecting it at the earliest possible moment, thus instituting prompt treatment. This also minimises the risk of the spread of infection.

It will be seen that of all the contacts, only one was *proved* to have contracted Tuberculosis. Some cases appear to have "suspicious" X-ray reports and require to be followed up.

It will also be noted that in 11 Europeans and 8 non-Europeans, X-ray photographs were not taken. These cases were carefully examined and the disease was excluded without X-ray. Seventeen of the cases appear to have some abnormality in the lungs. These patients have been carefully followed up, and so far no evidence of positive Tuberculosis has been revealed.

All suspicious cases are being kept under constant and careful supervision.

TUBERCULOSIS CONTACTS.

Clinic Ref. No.	Name of Contact.	Age.	Sputum Examination.	X-ray Result.	Clinical Examination.	Primary Case.	Relation.	Age.	Open or Closed Lesion.	Type of Tuber-culosis.	Definite Case.
ET/183/37	I.N. J.N.	10 8	Not taken	" "	Normal.	J.A.	Friend	18	Open	Pulmonary	Yes
ET/183a/37	S.N.	6	"	" "	"	"	"	"	"	"	"
ET/183b/37	J.N.	21	"	" "	"	"	"	"	"	"	"
ET/183c/37	M.N.	18	"	" Nil	Creps left axilla.	"	"	"	"	"	"
ET/183d/37	G.N.	14	"	Not taken	Chest normal, congenital heart.	"	"	"	"	"	"
ET/183e/37	K.B.	16	"	Nil	Normal.	E.B.	Father	40	Closed	"	"
	M.P.	22	"	"	"	M.R.	Friend	34	Open	"	"
ET/193/37	J.P.	2	"	"	"	J.P.	Mother	20	Closed	"	"
ET/195/37	C.de B.	13	"	"	"	de B.	Father	Not a clinic case.	"	"	"
ET/194/37	F.T.	11	"	"	"	F.T.	"	41	Open	Pulmonary	"
ET/196/37	I.T.	14	"	"	"	"	"	"	"	"	"
ET/197/37	A.F.	5	"	"	"	"	"	"	"	"	"
ET/198/37	P.F.	8	"	"	"	"	"	"	"	"	"
ET/199/37	J. de B.	12	"	"	Chronic Bronchitis	"	"	"	"	"	"
ET/201/37	S. de B.	9	"	"	"	"	"	"	"	"	"
ET/202/37	S. de B.	9	"	"	"	"	"	"	"	"	"
ET/203/37	S. de B.	8	"	"	"	"	"	"	"	"	"
ET/204/37	D. de B.	18	"	"	"	"	"	"	"	"	"
ET/205/37	A.P.	23	"	"	"	"	"	"	"	"	"
ET/206/37	B.M.	3	"	"	"	"	"	"	"	"	"
ET/207/37	I.M.	5	"	"	"	"	"	"	"	"	"
ET/208/37	P.M.	7	"	"	"	"	"	"	"	"	"
ET/209/37	H. v. R.	12	"	"	"	"	"	"	"	"	"
ET/210/37	J. v. R.	10	"	"	Slight Fibrosis Right Lung.	"	"	"	"	"	"
ET/211/37	E. v. R.	9	"	"	Nil	"	"	"	"	"	"
ET/212/37	A. v. R.	10	"	"	Bronchial breathing middle left lobe.	"	"	"	"	"	"
ET/213/37	P. v. R.	5	"	"	Normal.	"	Grand-father	"	"	"	"
ET/214/37	J.V.	4	"	"	Slight Fibrosis.	"	"	"	"	"	"
ET/215/37	C.V.	4	"	"	Nil	"	"	"	"	"	"
ET/216/37	A.V.	3	"	"	Died of Encephalitis.	"	"	"	"	"	"
ET/217/37											

Clinic Ref. No.	Name of Contact.	Age.	Sputum Examina- tion.	X-ray Result.	Clinical Examination.	Primary Case.	Relation.	Age.	Open or Closed Lesion.	Type of Tuber- culosis.	Definite Case.
	P.V.	1	Not taken	Nil	Normal.	P. v. R.	Grand- father Wife	57	Open	Pulmonary	Yes
ET/218/37											
ET/219/37	J.H.	46	"	"	Borderline case. Suspicions of early T.B.	M.H.			"	"	"
ET/221/37	J.P. J.C.	27	"	"	Not taken	"	J.P. J.C. H.B.	20	Closed	"	"
ET/222/37	C.B.	10	"	"	"	"	Father	28	Open	"	"
ET/223/37	J.B.	24	"	"	"	"		48	Closed	"	"
ET/224/37	S.B.	2	"	"	"	"				"	"
ET/225/37	A.S.B.	18	"	"	"	"				"	"
ET/226/37	(1) A.J.	14	"	"	"	"				"	"
ET/228/37	(2) A.J.	12	"	"	"	"				"	"
ET/229/37	(3) A.J.	10	"	"	"	"				"	"
ET/230/37	D.F.	7	"	"	Pigeon chested.	"				"	"
ET/231/37		8	"	"	Chronic bronchitis. Both hila fibrosed.	"				"	"
ET/232/37	J.P. D.R.	7	"	"	Normal.	"	J.P. M.R. J.C.	28	Closed	Pulmonary	Yes
ET/233/37	E.C.	15	"	"	Not taken	"	Husband	34	Open	"	"
ET/234/37	E.C.	31	"	"	Nil	"	Father	28		"	"
ET/235/37	P.C.	2	"	"	"	"				"	"
ET/236/37	P.C.	4	"	"	"	"				"	"
ET/237/37	J.C.	7	"	"	"	"				"	"
ET/238/37	K.M.C.	16	"	"	"	"				"	"
ET/239/37	M.M.C.	10	"	"	"	"				"	"
ET/240/37	W.M.C.	9	"	"	Abnormal No. of calcified hilar and peri-hilar glands with some fibrosis.	"				"	"
ET/241/37	M.C.	10	"	"	Fibrosis of right hilum.	"	J.C. Father	28		"	"
ET/242/37	J.F.	6	"	"	Nil	"	No primary P. v. R.	—	—	—	—
ET/243/37	S. v. R.	17	"	"			H.M. T.D.	57	Closed	Pulmonary	"
ET/244/37	J.M.	15	"	"				44		"	"
ET/245/37	H.H.G.	21	"	"				21		" Not a clinic case.	"

Clinic Ref. No.	Name of Contact.	Age.	Sputum Examination.	X-ray Result.	Clinical Examination.	Primary Case.	Relation.	Age.	Open or Closed Lesion.	Type of Tuber-culosis.	Definite Case.
ET/247/38 ET/248/38	J.v.R. E.V.	51 26	T.B. (-) T.B. (-)	Nil ,,	Normal. Few creps left side.	P.v.R. ,,	Husband Grand father	57	Closed	Pulmonary	Yes
NT/235/37	E.J.	6	Not taken	Not taken	Normal.	H.J.	Mother	28	Open	"	"
NT/235a/37	M.J.	3	"	" Nil "	"	D.S.	Wife	?	"	"	"
NT/242/37	J.M.	41	"	"	"	Nil	—	—	"	"	"
NT/244/37	R.R.	42	"	Not taken	"	—	—	—	—	—	—
NT/245/37	M.K.	7	T.B. (-)	,,	Few creps right side.	—	—	—	—	—	—
NT/248/37	V.M.	45	T.B. (-)	Nil	Normal.	—	—	—	—	—	—
NT/249/37	H.I.	49	Not taken	Not taken	"	—	—	—	—	—	—
NT/254/37	M.M.	16	,,	Effusion right base.	"	—	—	—	—	—	—
NT/258/37	K.M.	49	"	Marked hilar thickening.	"	E.M.	Wife	36	Open	Pulmonary	Yes
NT/259/37	(1) J.M.	7½	,,	Calcified Tracheal Bronchial Glands.	"	—	Mother	—	"	"	"
NT/260/37	(2) J.M.	3	,,	Bronchial breathing.	"	—	—	—	—	—	—
NT/261/37 NT/262/37	A.M. E.M.	14 16	"	Normal.	Nil	—	Brochial breathing.	—	"	"	"
NT/263/37	N.M.	4	"	" Nil "	"	—	—	—	—	—	—
NT/269/37	(1) M.E.	25	"	"	"	M.E.	Husband Father	22	"	"	"
NT/270/37	(2) M.E.	2	"	"	"	—	—	—	—	—	—
NT/271/37	C.E.	5	"	"	"	W.R.	Husband Father	?	"	"	"
NT/274/37	L.R.	36	"	"	"	A.M.	Husband Father	?	"	"	"
NT/275/37	E.R.	14	"	"	"	A.B.	Son	?	"	"	"
NT/276/37	J.M.	40	"	"	"	—	—	—	—	—	—
NT/278/38	Q.B.	22	"	"	"	—	—	—	—	—	—
NT/279/38	F.C.	58	"	Moderate amount of pulmonary fibrosis	"	—	—	—	—	—	—
NT/280/38 NT/281/38	Q.C. A.C.	15 7	Not taken	Nil	Normal.	—	Brother	—	"	"	"

Clinic Ref. No.	Name of Contact.	Age.	Sputum Examina- tion.	X-ray Result.	Clinical Examination.	Primary Case.	Relation.	Age.	Open or Closed Lesion.	Type of Tuber- culosis.	Definite Case.
NT/282/38	M.C.	6	Not taken	Nil	Normal. Few creps left side.	A.B.	Brother	23	Open	Pulmonary	Yes
NT/283/38	G.S.	9	"	"	"	? S.	Mother	?	Not a clinic case.		
NT/284/38	E.S.	7	"	"	"						
NT/289/38	A.M.	20	"	"	"	F.S.	Friend	57	Closed	" Pulmonary "	No
NT/291/38	R.R.	39	"	"	"	"	"	"	"	"	Yes
NT/292/38	F.R.	12	"	"	"	"	"	"	"	"	"
NT/293/38	R.R.	7	"	"	Nil. Should be watched.	"	"	"	"	"	"
NT/294/38	E.M.	13	"	"	Nil	Harsh breathing	O.M.	Mother	?	Not a clinic case.	
NT/295/38	S.M.	7	"	"	Normal.	"	"	"	"	"	
NT/296/38	A.M.	9	"	"	Fibrosis of both both hila.	"	"	"	"	"	

TUBERCULOSIS CLINIC (Section of Special Diseases Clinics).

The Clinics for Europeans and non-Europeans are held at this Department's Special Diseases Clinics situated at the Pretoria Hospital.

Two weekly clinics—one for Europeans and one for non-Europeans—are held. Cases are examined, treated and receive full instructions as to how to prevent the spread of the disease.

Wherever necessary, milk and medicines are supplied. All the contacts are followed up and referred to the Clinic for examination. X-ray and sputum examinations are done in every case.

Priority is given for hospital or sanatorium treatment to all open cases and cases from small, overcrowded houses where others are exposed to the risk of infection.

All cases are regularly visited by the Clinic Sister and Tuberculosis visitor in order to become fully acquainted with the conditions under which they live and to impart such advice as is required.

The Department is still faced with the problem as to how the chronic advanced cases can be treated. It is hoped that this matter will receive consideration in the very near future and that a system of treating such cases at a farm colony or chronic sick home will be instituted.

During the year the attendances at these clinics have been well maintained.

OUTDOOR PATIENTS.

	European. 1936/7	Non-European. 1936/7	Total. 1936/7	European. 1937/8	Non-European. 1937/8	Total. 1937/8
No. of new cases coming under treatment during the year	28	76	56	70	146	146
No. of Hercules patients ..	3	1	32	29	13	14
No. of attendances paid by Hercules patients ..	5	2	42	37	20	22
Total number of patients who attended	448	544	741	293	334	878
Total number of attendances paid	1,354	1,469	1,741	387	436	1,905
No. of visits paid during the year to houses of patients by Health Visitors ..	1,408	1,943	2,898	1,490	1,713	3,656

WITWATERSRAND ANTI-TUBERCULOSIS COUNCIL.

The Witwatersrand Anti-Tuberculosis Council was established in Johannesburg during April, 1937, for the purpose of investigating the Tuberculosis position along the Reef and in Pretoria.

The Pretoria City Council contributed a sum of £50 towards the expenses of this Council. The Medical Officer of Health was appointed to act on the Council.

6. SCARLET FEVER.

	Europeans.	Non-Europeans.
Local cases	152 (64)	— (—)
Imported cases	3 (14)	— (1)
	<hr/> <hr/>	<hr/> <hr/>
	155 (78)	— (1)
	<hr/> <hr/>	<hr/> <hr/>

Age Distribution :

There were 27 cases in children between 1-5 years, 90 between 5-10 years, 27 between 10-20 years, 6 between 20-40 years, and 2 over 40 years.

Seasonal Distribution :

Two cases occurred in July, 5 in August, 6 in September, 15 in October, 16 in November, 9 in December, 14 in January, 15 in February, 20 in March, 25 in April, 12 in May, 16 in June.

Fifty of the patients mentioned were treated at the Isolation Wards and 102 were home-treated.

There was a minor epidemic of Scarlet Fever during the year under review. The disease was of a very mild type and none of the cases showed any complications. Secondary cases were reported in eight instances.

In cases where it was deemed necessary, the quarantine period was reduced from six weeks to 4 weeks, provided that two consecutive nose and throat swabs were negative for Haemolytic Streptococci, during the third and fourth weeks of the illness.

7. DIPHTHERIA.

				Europeans.	Non-Europeans.
Local cases ..	..	..	..	37 (39)	2 (2)
Imported cases ..	..	..	..	10 (12)	2 (2)
				<hr/>	<hr/>
				47 (51)	4 (4)
				<hr/>	<hr/>

Age Distribution :

One case was in an infant under 1 year, 16 between 1-5 years of age, 11 between 5-10 years, 5 between 10-20 years, 4 between 20-40 years.

Of the cases mentioned, 33 were treated at the Isolation Wards and 6 were home-treated.

Two cases were suffering from diphtheria and scarlet fever at the same time.

There were 5 deaths from this disease—4 Europeans and 1 non-European.

The Department has this year extended its anti-diphtheritic prophylaxis campaign. Preparations are placed at the disposal of practitioners for the prevention of the spread of diphtheria.

8. MEASLES.

				Europeans.	Non-Europeans.
Local cases ..	..	..	..	51 (38)	2 (2)
Imported cases ..	..	..	..	— (1)	— (-)
				<hr/>	<hr/>
				51 (39)	2 (2)
				<hr/>	<hr/>

Measles is only notifiable when occurring in hospitals, nursing homes, boarding houses, hotels, hostels and schools. These remarks also apply to whooping cough.

9. WHOOPING COUGH.

				Europeans.	Non-Europeans.
Local cases ..	..	..	..	20 (167)	— (13)
Imported cases ..	..	..	..	2 (3)	— (-)
				<hr/>	<hr/>
				22 (170)	— (13)
				<hr/>	<hr/>

(See remarks under Measles.)

10. ERYSIPelas.

				Europeans.	Non-Europeans.
Local cases ..	..	..	..	24 (33)	4 (2)
Imported cases ..	..	..	..	16 (13)	4 (-)
				<hr/>	<hr/>
				40 (46)	8 (2)
				<hr/>	<hr/>

11. POLIOMYELITIS.

				Europeans.	Non-Europeans.
Local cases ..	..	..	..	— (3)	— (-)
Imported cases ..	..	..	..	1 (4)	— (-)
				<hr/>	<hr/>
				1 (7)	— (-)
				<hr/>	<hr/>

12. ANTHRAX.

	Europeans.				Non-Europeans.	
Local cases ..	..	..	..	..	—	(—)
Imported cases ..	..	..	..	..	—	(—)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	1	(—)			—	(—)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

13. OPHTHALMIA NEONATORUM.

	Europeans.				Non-Europeans.	
Local cases ..	..	..	..	..	2	(1)
Imported cases ..	..	..	..	..	1	(1)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	3	(7)			7	(2)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

14. TRACHOMA.

	Europeans.				Non-Europeans.	
Local cases ..	..	..	..	..	1	(2)
Imported cases ..	..	..	..	..	1	(1)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	1	(—)			1	(3)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

15. PUERPERAL SEPSIS.

	Europeans.				Non-Europeans.	
Local cases ..	..	..	..	..	7	(3)
Imported cases ..	..	..	..	..	6	(8)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	13	(7)			16	(11)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Careful investigation was carried out in these cases in order to ascertain the probable source of infection. All suspect carriers were examined.

16. GONORRHOEAL OPHTHALMIA.

	Europeans.				Non-Europeans.	
Local cases	—	(—)
Imported cases	—	(—)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	—	(—)			2	(—)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

17. LEPROSY.

There was only one imported European female case notified during the year.

18. ENCEPHALITIS LETHARGICA.

Two notifications were received, both in Europeans. The one was a local case and this patient succumbed to the disease.

19. SKIN MAGGOTS (*Cordylobia Anthrophophaga*).

One case of this infection was notified during the year.

This disease sometimes makes its appearance here during the months of January, February and March. (See Annual Report of 1934-35.)

20. SMALLPOX.

One local case, an adult European male, was notified during the course of the year, from the Railway Reserve. The patient was a ticket examiner on the South African Railways. His duties took him out of Pretoria daily, bringing him in contact with many people travelling on the different trains.

As a result of this case and also because of several outbreaks of the disease in close proximity to Pretoria, the Department launched an energetic vaccination campaign. Persons who had not been immunised within the last five years were requested to be vaccinated or revaccinated. It therefore, became necessary to engage the services of three doctors in order to meet the extra work entailed by the large number of Pretoria residents who presented themselves for vaccination. Depots for non-Europeans were immediately opened at the Marabas Location Offices from the 18th April to the 2nd May; Dougall Hall, Marabas Location, from the 18th to 22nd April; Columbia Hall, Asiatic Bazaar, from the 18th to the 22nd April; Bantule Location from the 18th to the 20th April. The Offices at Van der Walt Street were kept open daily for the vaccination of Europeans and non-Europeans. The Department also visited different institutions, where it was

found that for some reason or other the occupants were unable to attend at the depots. The following were some of the Institutions visited :—

The Municipal Compound, the Municipal Hostel, the Civilian Blind workshop, the Fountains Kiosk, the New Power Station, the Chinese Club, the City Engineering Works, the Government Printing Works, Ebenezer Home, and a depot was established at Roseville to meet the market gardeners at Eloffsdal.

This resulted in very extensive vaccinations, no less than 18,979 Europeans and 40,107 non-Europeans being vaccinated.

The following control measures were carried out by the Roberts Heights Hygiene Section :—

Vaccinations :

Europeans ..	..	..	..	..	5,000
Natives ..	..	..	..	..	1,600
TOTAL	..	..	..	..	6,600

The figures include a considerable number of residents from surrounding areas beyond the confines of the Cantonments.

House Searches.—Every Native quarter or hut was visited weekly for possible presence of concealed cases.

Restriction of Movements.—An endeavour was made to restrict movements of Natives by the control of the issue of passes.

Owing to these energetic preventive measures, I am pleased to report there were no further cases in Pretoria, although a fair number occurred not far from the City.

21. MALARIA.

			Europeans.	Non-Europeans.
Local cases ..	..	..	6 (5)	— (3)
Imported cases ..	..	..	22 (83)	11 (56)
			28 (88)	11 (59)

Five of these cases occurred during the month of November, 1937, and one in May, 1938. One of the local cases died.

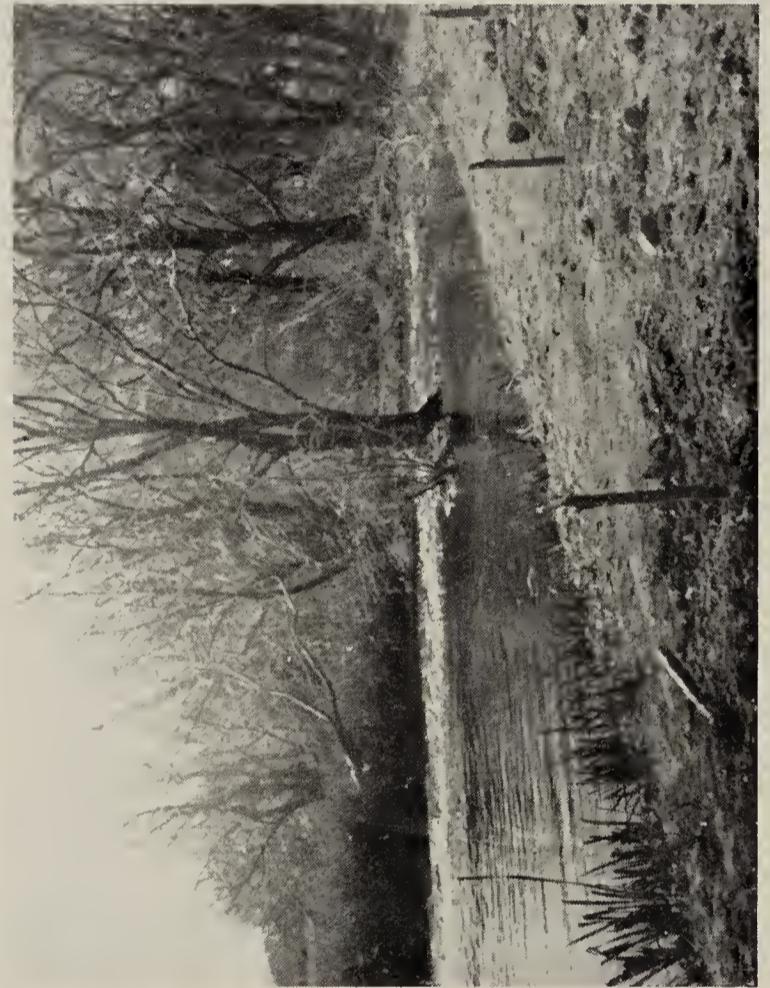
Very careful departmental investigation indicates that probably all these cases were infected in Pretoria.

The following is a résumé of the histories and other circumstances in connection with the cases suspected to have been contracted locally :—

Name and Card No.	Date of onset of illness.	Date when patient was infected.	Date when mosquito biting patient must have been infective.	Period during which hatching took place between :	Mean Daily temperature when hatching took place.	Average rain-fall.
S. v. d. W. 17/11/37	6/11/37	24/10/37	12/10/37	5/10/37 and 12/10/37 30/10/37	68.9°F.	1.15
Mrs. S. 16/11/37	31/10/37	19/10/37	7/10/37	7/11/37 16/11/37	68.17°F.	1.12
G.S. 34/11/37 du T. 34/11/37	15/11/37 "	3/11/37 "	23/11/37 "	23/11/37 "	74.9°F. 74.9°F.	.07 .07
P. v. d. B. 59/11/37	10/11/37	29/10/37	29/10/37	22/10/37 and 29/10/37 21/10/37	74.37°F.	.48
C.J.V. 52/11/37	21/11/37	9/11/37	28/10/37	28/10/37	74.44°F.	.51



A.—Natives engaged on deepening and regularising south bank of Power Station dam.



C.—Portion of south bank of Power Station dam, showing a reclaimed clean cut bank with willow cuttings at intervals.



E.—Brickfields, Pretoria West. Eradication of a mosquito breeding pool by blasting the sides of the borrowpit with dynamite. Iscor Steelworks in background (17.1.38).



B.—Close up of portion shown in (A), showing nature of breeding places being eliminated.



D.—Elimination of seepages by drainage and afforestation. Note fencing and the little mounds where trees have been planted (17.1.38).



F.—Showing the same mosquito breeding pool as in Photo No. 1, with reclamation nearing completion. Mosquito breeding now impossible (17.1.38).

According to the mean temperatures, as shown in the above cases, it is quite possible that the mosquito could have hatched in Pretoria. The temperature necessary for the parasite to develop in the mosquito should not be lower than 60°F. The temperature registered in Pretoria during the time when the above cases were notified averaged 72·61°F.

In no case was the climatic condition such that the mosquitos could not have hatched in Pretoria. It must, however, be borne in mind that the occurrence of malaria in Pretoria, and the possibility of infected mosquitos being prevalent here, when compared with conditions prevailing elsewhere at the same time, is difficult to understand.

Interesting features in the above cases are that they are all, with the exception of one, from one area, namely, a portion of Railway Reserve, and are closely grouped together. Some of these cases were infected practically on the same day and this would indicate a common source of infection.

In all cases thorough investigation was made of the places and surroundings, and all houses thoroughly sprayed and the dead mosquitos examined for the presence of the Anopheline vector. In no cases were the malaria-carrying mosquitos found.

All the cases notified were sub-tertian malaria, and the diagnosis was confirmed microscopically.

Efforts to discover the origin of the disease, however, proved of no avail, as was the experience with two further new infections which occurred simultaneously in April in Maltzan Street.

Questions which arise in this connection are :—

- (1) Are the mosquitos "overwintering" in Pretoria?
- (2) Were the infecting mosquitos infected locally by un-notified cases?
- (3) What possibility is there of these mosquitos being introduced?

The absence of adults of *A. gambiae* from habitations incidental to the occurrence of cases of malaria would suggest one or more of three possibilities—either :

- (1) the adults are shortlived under the prevailing conditions at this time of the year; *or*
- (2) they are so few as to render their detection difficult; *or*
- (3) that the lack of suitable climatic conditions inside habitations forces the insects to seek more congenial surroundings outside.

Owing to the time taken up in organising, it was not possible for the Inspector in charge to carry out detailed investigations in this regard, but this aspect will receive prominence in next year's campaign.

Pretoria is not considered a malarious area. For some years there were no locally-contracted cases reported. Last year, however, there were 8 local cases and this year 6. There is nothing alarming in these few cases, but at the same time the matter requires very careful investigation, especially with regard to the future. It is for this reason that the whole question of mosquito breeding in Pretoria is being studied very carefully, resulting in all the recommendations appended hereunder.

A preliminary survey was carried out during August and September, 1937, to ascertain what measures would be necessary to control mosquito breeding in Pretoria.

Though winter conditions prevailed and breeding was at a minimum, sufficient data were obtained to frame recommendations.

The recommendations under the following headings

- | | |
|--|--|
| A.—Concrete canal extensions ; | E.—Afforestation ; |
| B.—Cleaning and regrading of existing drains and spruits ; | F.—Reclamation ; |
| C.—Sub-soil drainage ; | G.—General measures for private property. |
| D.—Fencing to exclude cattle and protect trees ; | H.—Measures advocated for certain properties ; |

were agreed to by the Council, and during October the campaign was launched.

A health inspector to take charge, three European overseers and 22 Native labourers were appointed to carry out permanent and temporary anti-larval measures.

In order to establish the measures on a sound basis, the whole area was divided into two portions, one overseer and five Natives with bicycles operated north of the Daspoort Range and one overseer and five Natives worked the southern portion.

Each of these areas was sub-divided into five sections and each section was treated regularly on the same day each week.

Reasonable control was maintained over all natural collections of water on Municipal as well as privately-owned lands, except irrigation dams and artificial collections of water such as are contained in tins, tanks, gutters, empty drums and barrels and discarded motor car tyres, etc., on private property. Ponds containing fish even in small numbers were found to be comparatively free from mosquito larvae.

The most suitable means of dealing with breeding in dams is being investigated, and continued inspections and propaganda will eventually bring about improvement in what may be termed "domestic breeding."

Active measures to control breeding in the vases were taken by the staffs at both cemeteries, and a Native under the supervision of the Caretaker was employed solely on mosquito eradication at Fountains Valley.

Uniformity of control being essential, every endeavour to invoke the co-operation of private land owners and other bodies was made, and it is gratifying to record the spontaneity with which such innovations were received. In order to cope effectively with mosquito breeding, it was considered necessary to invite the co-operation of the following :—

- (1) Pretoria University Experimental Farm.
- (2) South African Railways Administration.
- (3) The National Match Company.
- (4) Hercules Municipality.
- (5) Les Marais Irrigation Board.
- (6) Eloffsdal Farmland Owners.
- (7) Officials of Government Property.

In every instance the required assistance was readily given and arrangements arrived at to the mutual benefit of the Council and the party concerned.

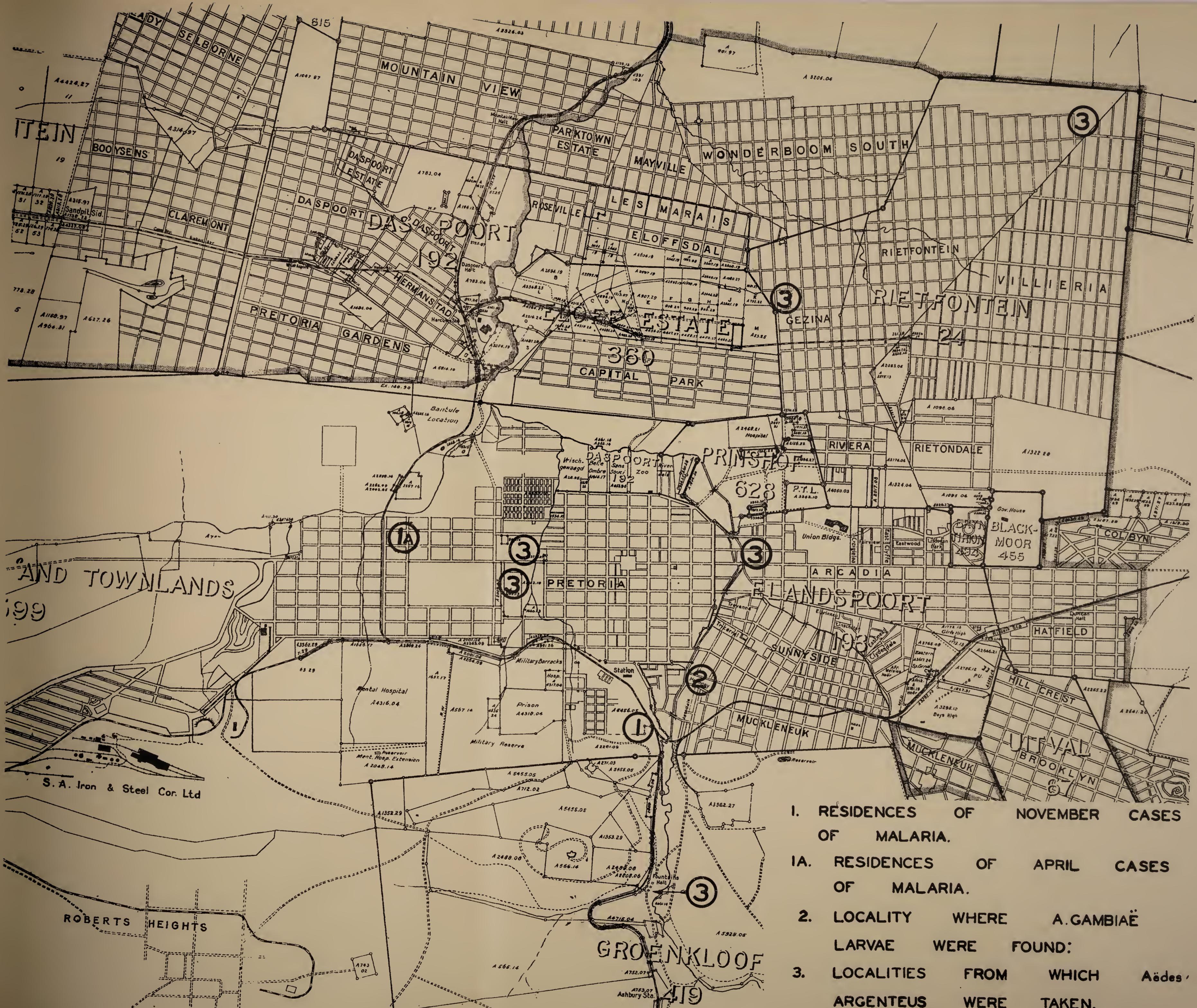
CONTROL MEASURES.

Permanent :

This Department has adopted the policy of making permanent measures its main line of attack, and in this regard, considerable progress has been made.

The main items referred to in the recommendations, *i.e.*, the canalisation of the Aapies River, Walker and Steenhoven Spruits, etc., were estimated to cost £60,000, and provision has had to be made on the loan schedule for this amount.

As pointed out by the City Engineer, this work would in any case have to be undertaken in the near future for other reasons besides mosquito control and



I. RESIDENCES OF NOVEMBER CASES
OF MALARIA.

IA. RESIDENCES OF APRIL CASES
OF MALARIA.

2. LOCALITY WHERE A. GAMBIAE
LARVAE WERE FOUND:

3. LOCALITIES FROM WHICH
ARGENTEUS WERE TAKEN.
Aëdes.

any expenditure on temporary measures in the meantime would be a waste of money. It is hoped therefore that this work will be commenced, if not completed, this year.

The reclamation of disused borrowpits at Pretoria West, New Muckleneuk and Innesdale is proceeding (see photographs facing page 25), the seepages below the Match Factory dam and furrow have been intercepted and drained into the Power Station dam, the south bank of the Power Station dam has been regularised. Depressions have been eliminated and afforestation is proceeding. (See photograph facing page 25.)

The vlei south of Proclamation Hill and the disused borrowpits beyond Stewarts Brickfields have been drained and several drains and spruits in different parts of the City have been cleaned and regraded. Vegetation has been removed from the banks where necessary.

If the present rate of progress is maintained, 95 per cent. of the perennial breeding foci will be removed within three years.

Temporary Measures :

As a general measure, wood shavings saturated with anti-malarial oil was broadcast by hand over breeding places.

The efficacy of oil on the larvae of culicine mosquitos, which incidentally constitute the major source of nuisance in Pretoria, proved uncertain and ineffective, especially in running water.

This fact coupled with the heavy burden of transport indicated that a larvicide more specific in its action and easier to handle should be sought. Several tests were carried out with black and white coal tar disinfectants. Most of the substances tested were found to be lethal to mosquito larvae within an hour at a concentration of 1 part in 5,000 parts of water, and the one with the lowest Rideal-Walker coefficient proved the most suitable, killing all larvae within half an hour! In this concentration, pupae are unaffected, but experiments in the field showed that this did not affect control, as with regular weekly applications larvae did not have time to pupate.

As the disinfectant is harmless to man and beast in this concentration, it is proposed to use it as a general larvicide next season.

Duration of Season :

Temporary anti-larval measures were carried out from the third week in October to the middle of May; breeding, however, continued on a fairly large scale after operations had ceased. On this account in future temporary measures will be commenced on, say, the 15th October and be continued to the end of May, until such time as the perennial foci of breeding have been substantially reduced.

A list of the genera of mosquitos and their respective species taken in Pretoria during the season is appended.

	LARVAE.	ADULTS TAKEN IN HABITATIONS.	
Genus.	Species.	Genus.	Species.
Anopheles	* <i>gambiae</i>	Anopheles	<i>cinereus</i>
	<i>squamulosus</i>		<i>squamulosus</i>
	<i>squamulosus var cydippis</i>		<i>mauritianus</i>
	<i>theileri</i>	<i>Remarks.</i> —(1) <i>Aedes argenteus</i> was taken from six different localities showing that the species (yellow fever vector) is well established in Pretoria (see map). (2) Of the <i>culex</i> genus, <i>C. fatigans</i> was the species most commonly found in human habitations with <i>C. theileri</i> the next most prevalent.	
	<i>pretoriensis</i>		
	<i>longipalpis</i>		
	<i>mauritianus</i>		
	<i>rufipes</i>		
	<i>cinereus</i>		
	<i>marshalli</i>		
	<i>natalensis</i>		
*Malaria vector			

LARVAE.		ADULTS TAKEN IN HABITATIONS.	
Genus.	Species.	Genus.	Species.
Aëdes	† <i>argenteus</i> (<i>S. fasciata</i>) <i>nigeriensis</i> <i>Stegomyia simpsoni</i> <i>vittatus</i> <i>Aëdimorphus albocephalus</i> <i>hirsutus</i> †Yellow Fever vector		The first-named species is a very ubiquitous breeder and constitutes the major nuisance in Pretoria.
Culex	<i>fatigans</i> <i>pipiens</i> <i>simpsoni</i> <i>theileri</i> <i>bitaeniorynchus</i> <i>annulioris</i> <i>decens</i> <i>duttoni</i> <i>univittatus</i> <i>salisburyensis</i> <i>quasigelidus</i>	Culex	<i>fatigans</i> <i>pipiens</i> <i>theileri</i> <i>simpsoni</i> <i>decens</i> <i>univittatus</i>

From the above list it will be noticed that the larvae of *A. gambiae* were taken early in March from a dam about 700 yards away from the homes of five of the persons who contracted the disease locally (see map). The habitations in the neighbourhood were searched at the time the infection occurred, but no adults were taken. On discovering the larvae, the habitations in the neighbourhood were again searched, but no adult *Gambiae* were found.

It must be recorded here that this is the first time in the history of Pretoria, as far as I am aware, that a malaria vector has been discovered in the area of this local authority. To the best of my knowledge, of all the mosquitos found in this area in the past, not one type has been found which has been proved to transmit the disease.

The finding of the *Anopheles gambiae* in Pretoria requires very careful contemplation. Next season more extensive "spotting" will be done, and it is hoped that a full report will be available in regard to the significance of this find.

The Department is grateful to Onderstepoort Laboratory, especially to Dr. D. G. Steyn for performing the toxicity tests on the various coal tar derivatives, and Mr. R. M. du Toit for assistance in identifying the mosquitos. Inspector Lee is largely responsible for this thorough and energetic investigation.

ANTI-PLAQUE MEASURES.

Pretoria is not an area where plague is prevalent, but anti-plague measures are constantly employed as a protection against invasion by plague-carrying rodents.

The following figures give an indication of the work carried out in connection with rodent eradication for the year ending 30th June, 1938, and demonstrate the results obtained by the District Health Inspectors in conjunction with the rodent eradicators in connection with anti-rodent work, such as "building-out" of rodents from stores, stables and dwellings, also the clearing and removal of rodent harbourage within the City's boundaries.

Assistance and advice has been given wherever necessary and it is pleasing to record that the willing co-operation of occupiers of private premises resulted in the destruction of a large number of rodents.

During this year the City Council purchased and maintained two dogs to assist the municipal rat-catchers in their work. These dogs are proving most useful.

(a) The gerbille area at Rietvlei farm situated in the vicinity of the Springs and above the dam, is still heavily infested. Systematic poisoning and a certain amount of gassing has been carried out in this vicinity during the year, but the nature of the soil and the heavy overgrowth of vegetation afford excellent coverage and feeding for gerbilles, and they are liable to migrate from adjoining properties into this area, although everything possible has been done to discourage such migrations.

(b) The regulations regarding the prevention of rodent infestation of buildings and premises in urban areas (Government Notice No. 1380 of 1st August, 1930) are strictly enforced within the City.

		1936-7	1937-8
New impervious floors laid in grain, flour and other stores	43	18	
Floors repaired or walls or roofs made rat-proof in flour, grain or forage stores ..	115	62	
Non-ratproofed grain, forage or other stores disused	21	24	
Non-ratproofed grain, forage or other stores demolished	8	—	
Accumulations of rubbish or lumber likely to harbour rats cleaned up or removed	1,143	1,438	
European dwelling houses : Foundations repaired, floor gratings replaced or rat holes stopped	361	234	
Native rooms : Floors relaid or repaired	168	126	
Ratproof animal food bins provided at private stables	19	34	
Premises inspected or re-inspected and advice given where necessary	1,754	1,502	
Notices or intimations to owners or occupiers of premises to use traps or poison	443	584	
Approximate number of rats destroyed in private premises (excluding Government properties)	3,966	7,950	
Number of rats and mice trapped or killed on Municipal properties and town lands	2,518	2,794	
Number of prosecutions for failure to comply with regulations	Nil	Nil	
Number of poison baits set on town lands and in protective belt	40,515	43,065	

Close co-operation is maintained with all other authorities concerned in regard to plague prevention work.

CHILD WELFARE ACTIVITIES.

Child Welfare Clinics are conducted thrice weekly—for Europeans at the Central Clinic, 240, Van der Walt Street and the following outlying centres : Blood Street, West End, Mayville and Gezina ; for non-Europeans at the Municipal Compound Hospital.

This Department intends establishing further additional clinics in Hatfield, Villieria and Capital Park as there are many living in these areas who find it impossible to avail themselves of clinic facilities because of the distances they have to travel.

During the year under review it was arranged for the Medical Officer-in-Charge to visit each of the different clinics personally, instead of referring those who require medical attention to the Central Clinic, as was previously done. As a result of this arrangement, the attendances have been more than doubled.

Milk was supplied through the State-Aided Milk Scheme to European and Cape Coloured pre-school children. The State-Aided Government Schemes do not include Native children, but the City Council and the Native Welfare Society of Pretoria have provided sufficient funds to supply milk daily free of charge to Native children. Two depots were established, one at the Eendracht Hall for European children and the other at Dougall Hall for the non-European children. Milk is also, of course, being supplied regularly free of charge at many of the schools.

Home visits paid by Health Visitors for the year ended 30th June, 1938 :—

	European.	Eurafrican.	Native.	Asiatic.
First visits to newly-born infants	1,636	88	251	135
Subsequent visits to infants and children to five years of age	4,886	1,236	2,180	1,392
Visits to sick children	487	97	104	89

Attendances at clinics :—

<i>Europeans :</i>	Central.	W. End.	Blood St.	Gez.	May.	W.B.S.
First visits to infants newly born	332	82	132	35	21	51
Subsequent visits to infants and children to five years of age	2,937	1,200	1,148	832	566	611
<i>Non-Europeans :</i>			Native.	Asiatic.	Eurafrican.	
First visits to infants newly born			274	48		67
Subsequent visits to infants and children to five years of age			3,637	482		973

In addition visits were paid by the Health Visitors as follows :—

	European. 1936/7	European. 1937/8	Native. 1936/7	Native. 1937/8	Asiatics. 1936/7	Asiatics. 1937/8	Eurafricans. 1936/7	Eurafricans. 1937/8
Where patients not at home	1,189	1,381	317	651	187	377	154	289
Where moved to another address	871	1,392	107	220	96	94	78	68
Visits <i>re</i> Diphtheria Immunisation ..	46	21	—	—	—	—	—	—
Visits to Nursery School	—	146	—	—	—	—	—	—
Visits to Nursery Guest House	—	6	—	—	—	—	—	—
Other special visits ..	—	201	—	684	—	20	—	13

Provision of supplementary food for babies attending the clinics cost the City Council a sum of £247, whilst the income accruing from the sale of such foods amounted to £96.

I am pleased to be able to record that as a result of the extension of the Ante-Natal and Child Welfare services, the Council has agreed that provision should be made on the Estimates for the year 1938/9 for the engagement of an additional Health Visitor.

It is hoped that this Health Visitor will be appointed before long, as the Department has been inundated with letters from the various suburbs in Pretoria requesting that clinics be opened in those areas.

Furthermore, it is considered essential that more home visiting should be done ; by keeping in close contact with the various homes, mothers receive instructions with regard to the proper care and feeding of infants, which is so essential for a healthy population.

ANTE-NATAL AND POST-NATAL CLINICS.

Ante-Natal Clinics are held once a week for Europeans and non-Europeans. The clinics for the Europeans are held at the Health Department Offices, Van der Walt Street, and those for non-Europeans at the Compound Hospital. The number attending these clinics has greatly increased during the last few years.

A Wasserman test for syphilis is now done at both European and non-European clinics. In each case, however, the pregnant mother is asked whether she would care to have her blood examined. In other words, it is purely voluntary.

This procedure has been instituted to prevent congenital syphilis. It also has the added advantage of discovering tertiary syphilitic cases, who do not at the time show obvious signs of the disease. Early treatment of syphilitics during pregnancy also avoids miscarriages and abortions. Pregnant women, who suffer from syphilis are treated at the Ante-Natal clinics.

The following is a report on the number of blood tests done at these clinics for the presence of syphilis, and the results are interesting to note. It must be remembered that practically none of these cases showed any signs of syphilis and were merely included in this voluntary routine examination.

Europeans :

During the period 9th October, 1936, to 29th April, 1938—

Wassermans taken	205
Positive	21

Non-Europeans :

During the period 6th September, 1933, to 27th April, 1938—

Wassermans taken	159
Positive	43

	..	..	..	Europeans.	Non-Europeans.
				1936/7	1937/8
New cases reporting at clinic	..	..	..	296	255
Number of attendances at clinic	..	..	..	965	856
Cases referred :—					
(1) For confinement				188	245
(2) To Special Diseases Clinic				24	7
(3) To Hospital Out-Patients' Department				45	21
(4) To Dental Clinic				85	64
Post-Natal attendances at clinic				100	110
Ante-natal visits to houses				344	395
*Midwifery cases attended by District Midwives ..				—	—
New midwifery cases booked				37	39
Number of visits to cases during puerperium				—	—
Post-natal visits to homes				232	249
Number of infants with discharging eyes				12	4
Visits paid <i>re</i> puerperal sepsis investigation				18	4
Visits paid <i>re</i> Ophthalmia Neonatorum				6	2
N.A.B. injections given				—	19
					—

*European cases are not attended to by the Municipal Midwife, but are referred to the Moedersbond Maternity Hospital.

EUROPEAN : Ante-Natal Clinics.

The total number of new cases visiting the Ante-Natal Clinics for the year was 255. European births numbered 1,699. The percentage of women attended to by our clinics was therefore 15·01.

The total number of ante-natal visits to the clinics and to the homes of patients was 1,251. That is to say, of the 255 women, each received approximately 5 ante-natal attendances from the Health Visitors.

EUROPEAN : Post-Natal Visits.

The total number of women visiting our clinics post-natally during the period under review was 110, and the total number of visits to the homes of patients was 249, making a total of 359 post-natal attendances. That is to say, the patients received between 3 and 4 attendances.

NON-EUROPEAN : Ante-Natal Clinics.

The total number of non-European births was 478 and the number of women visiting the clinic was 190. The percentage of non-European women attended to by our clinic is 39·75.

These 190 women received 1,705 ante-natal attendances by Health Visitors at home or at the clinic. That is, approximately, 9 visits per patient.

NON-EUROPEAN : Post-Natal Visits.

The total number of non-European women who received post-natal visits was 190. The total number of attendances by Health Visitors to the homes or at the clinics was 562, that is about 3 post-natal visits per case.

The discrepancy between European and non-European figures here has been adequately explained in last year's Report. All these figures reflect favourably on the activities of the clinics of the City Council of Pretoria when compared with institutions in Europe and elsewhere.

CONTROL OF MIDWIFERY.

There are in Pretoria—

		Europeans.	Non-Europeans.
Qualified Midwives	.. .. .. ..	41	4
Unqualified, but registered midwives	.. ..	21	—
Unqualified, but midwives allowed to practise under control	.. .. .. ..	—	5

Talks were given to midwives during the course of the year. Puerperal sepsis cases were carefully followed up and the midwife concerned interviewed by the Assistant Medical Officer of Health. Careful control has been kept over unqualified midwives who have been registered here in the past years.

A close watch is kept over all cases conducted by midwives in Pretoria, and the register of each midwife is, where possible, examined in her presence case by case with interrogations and, where necessary, advice is given.

SPECIAL DISEASES CLINICS.

(Venereal Diseases Section.)

These clinics are conducted at this Department's Special Diseases Clinic, situated in the grounds of the Pretoria Hospital.

Owing to the increase in the number of cases attended every year, it was found difficult to carry out the work properly. The City Council therefore agreed to the building of a separate clinic for Europeans. This building is very nearly completed, and will, no doubt, be one of the best designed of its kind from the point of view of both the patients and staff. It is situated next to the Out-Patients' Department, Pretoria Hospital, on the eastern side. The approximate cost of this building and equipment will be in the neighbourhood of £5,000.

During the year several lectures on Venereal Diseases were given by the Medical Officer of Health. At these lectures every effort was made to focus public attention on the nature of the Disease, and to arouse that sense of personal responsibility without which all public health work must fall short of its aims.

EUROPEAN CLINICS (by the Medical Officer-in-Charge).

It will be seen from the attached figures that the clinics have maintained the steady progress reported in the last four years in the number of new patients presenting themselves for examination and treatment, in the total number of attendances and in the treatment given.

I feel that there are four main reasons for this increase :—

- (1) The public is developing a proper appreciation of the facilities available for them.
- (2) The policy of the Health Department is to try and trace every source of infection, and in cases of children and married people to examine all the members of the family. As a result of this policy numerous cases have been brought to light and made to attend for treatment which otherwise might have carried on being a menace to the health of the community.
- (3) The Council has placed a supply of free bus tickets at the disposal of the clinic which are distributed to poorer patients who live at some distance from the clinic. In practice, these are given mainly to women living in the outlying suburbs whose husbands are unemployed or earning very little.

This concession is much appreciated.

- (4) A supplementary clinic for males is now conducted on Tuesday mornings from 8.30 to 9.30 for the benefit of those who work afternoon shifts and thus cannot attend the regular Friday afternoon clinic.

The attendance is so far encouraging, and will probably increase as this facility becomes better known. Naturally, at both European and non-European sections there is a daily clinic for treating patients who require daily attention such as douching.

In the treatment of patients, particularly syphilitics, this Department has taken the broad view that our duty is not fulfilled by merely rendering them non-infectious, but that they should be given continuous treatment until the disease has been properly controlled or cured. We consider this to be the correct view of our public health responsibility.

In common with all other clinics, we have the problem to contend with of the person who defaults from treatment. We have found that personal visits from the Clinic Sister or Clinic Clerk are a great help in persuading these people to attend, and these visits are now a regular and important part of the clinic staff duties.

NATURE OF DISEASE.	NUMBER OF NEW CASES COMING UNDER TREAT- MENT DURING THE YEAR.		TOTAL NUMBER OF OUT- DOOR ATTENDANCES DURING THE YEAR.	
	Male.	Female.	Male.	Female.
Syphilis :				
(a) Primary or Secondary	17	21	376	711
(b) Tertiary	7	9	299	404
(c) Of Central Nervous System ..	—	—	8	45
(d) Congenital	2	41	70	332
Gonorrhoea	91	182	2,841	4,192
Other Venereal Diseases	—	—	25	11
TOTAL	117	253	3,619	5,695

For the purpose of comparison, the following are the figures for the last five years :—

	NUMBER OF NEW PATIENTS SEEN DURING THE YEAR.				TOTAL NUMBER OF ATTENDANCES.
1933-34	2,491
1934-35	2,920
1935-36	5,851
1936-37	7,817
1937-38	9,314

NON-EUROPEAN CLINICS.

As in the case of the Europeans, the number of non-Europeans attending the clinic is increasing every year. It is felt that this, no doubt, is due to the increased efficiency of the clinic system and through the kind co-operation of private practitioners.

By the system of home visiting inaugurated a couple of years ago, the Clinic Sister and the Clinic Clerk are able to encourage patients to attend the clinic more regularly without it being necessary to exert undue pressure.

Cases from outside the Municipal Area are also treated at the clinic, and, where necessary, rail warrants, supplied by the magistrate, are issued at the clinic by the Assistant Medical Officer of Health.

On the whole, the non-Europeans attend the clinic very willingly, and it is only very seldom that defaulters have to be referred to the magistrate.

The number of new patients seen during the year was 1,018, 517 males and 501 females. Of the males, 336 had syphilis and 181 had gonorrhoea, whilst of the females, 415 had syphilis and 86 had gonorrhoea. In this figure is included 184 children brought to the clinics during the year as new patients suffering from congenital syphilis, 32 being males and 152 females.

In addition to the new patients seen during the year, 231 non-Europeans (males 96 and females 135) presented themselves for examination and were found to be free from syphilis in a communicable form. The number of patients who were rendered non-infectious or cured and discharged from the clinics was 232, 139 males and 93 females.

The total number of persons who attended the clinic was 1,445 and the total number of attendances paid was 14,707, males 7,267 and females 7,440.

The total number of intravenous injections of Salvarsan or other similar preparations given was 9,434.

The following table gives comparative figures of the last five years :—

				No. of new patients seen during the year.	Total number of attendances.	Number of intravenous injections.
1933-34	..	..	..	1,559	11,525	7,395
1934-35	..	..	..	1,169	11,546	9,223
1935-36	..	..	..	769	12,505	7,685
1936-37	..	..	..	1,020	14,200	8,810
1937-38	..	..	..	1,018	14,707	9,434

The Department is again indebted to local practitioners for submitting every month the number of cases suffering from venereal disease, which they have treated. The following is a résumé of these figures :—

		EUROPEAN.				NON-EUROPEAN.			
		MALES.		FEMALES.		MALES.		FEMALES.	
		1937/38	1936/37	1937/38	1936/37	1937/38	1936/37	1937/38	1936/37
Gonorrhoea ..	..	287	264	52	60	59	62	6	10
Vulvo-vaginitis ..	—	—	—	27	28	—	—	2	2
Syphilis :									
Primary ..	..	17	26	11	2	56	37	12	9
Secondary ..	..	8	7	2	13	72	38	30	18
Tertiary ..	..	5	15	10	14	52	65	37	32
Neuro ..	..	—	4	—	—	3	—	—	—
Congenital ..	..	4	1	1	—	24	4	10	8
Other Venereal Diseases		4	9	—	—	—	—	—	2
		325	326	103	117	266	206	97	81
					1937/38		1936/37		
TOTAL ..	..	..	..	791		730			

VULVO-VAGINITIS.

In connection with the spread of this disease, the Medical Officer of Health was requested by the Director of the Transvaal Education Department to co-operate with the School Medical Inspectors in drawing up recommendations for the prevention of the spread of this disease. The following were the recommendations submitted :—

GONORRHOEAL VULVO-VAGINITIS IN SCHOOLS AND SCHOOL HOSTELS.

(1) DEFINITION OF THE DISEASE.

An infection by the Gonococcus causing an inflammatory condition in the genital organs of young girls, usually from the age of about two to twelve years.

Note.—The Gonococcus is the germ which also causes the venereal disease known as Gonorrhoea in the adult.

(2) ETIOLOGY.

It must be clearly understood that in children this disease is very rarely contracted through sexual intercourse, and should not be associated with immorality. The disease spreads very rapidly among young girls, especially in institutions. What generally happens is that one girl is infected through an outside source, as will be explained later, and she in turn innocently spreads the disease to other children.

The condition is associated with a vaginal discharge, and in this discharge is contained the germ which spreads the disease, and only direct contact with this discharge can transmit the disease.

This disease, though it may require prolonged treatment until a cure is effected, is not as serious as Gonorrhoea in the adult. It is usually necessary to treat cases at a special centre.

(3) METHODS OF SPREAD.

- (i) The original case is very often traced to an infection at home. Either parents, relatives or servants, who are infected, may transmit the disease to children.
- (ii) Infected children, by contaminating lavatory seats, may easily spread the disease to others using the same seat immediately afterwards. The use of a common bed chamber in a hostel might have a similar result.
- (iii) A very important method of spread occurs in dormitories ; even though separate beds are provided, it frequently happens that children, especially after "lights out," jump into one another's beds ; and an infected case would under these circumstances be a great source of danger.
- (iv) Bath towels, sponges, flannels, etc., often spread the infection.
- (v) Using the same bath water for several children, especially when warm, or allowing children to bathe together, is another method of spread.
- (vi) Underclothing and bedding may also transmit the disease.
- (vii) Where a school bench accommodates more than one, an infected child may deposit a discharge on the bench and through shifting about infect others.
- (viii) Mutual handling of the private parts may convey the disease from one to the other.
- (ix) In rarer cases, sexual intercourse or criminal assault is responsible for the spread.

(4) SYMPTOMS.

Within about a week after exposure to infection, any or all of the following symptoms may appear :—

- (a) Redness and irritation of the private parts.
- (b) Burning and the desire to pass water frequently.
- (c) Presence of a vaginal discharge, which may be associated with discomfort when walking.

It is important to note that all these symptoms may be present in such a mild degree that they may be hardly noticeable. It must be borne in mind that all vaginal discharges are not necessarily gonorrhoeal. Any discharge in a child should be treated with suspicion, but must be seen by a doctor for final diagnosis. Repeated medical examinations may be necessary.

(5) METHODS OF PREVENTION OF SPREAD.

A.—Day Schools.

1. Isolation and immediate medical examination of all suspected cases. Care should be taken not to discuss cases in any way with a third party.
2. The disease known as "Gonorrhoeal Vulvo-vaginitis" should be included under the schedule of Notifiable Infectious Diseases in Section 18 of the Public Health Act of 1919.

3. Lavatory Accommodation :

- (i) There should be a minimum of—one lavatory for every 15 boys and 10 ft. of urinal space per 100 boys with a minimum length of 6 ft. ; and one lavatory for every 10 girls.
- (ii) Separate suitable accommodation should be provided for junior and senior girls, irrespective of the size of the school. The lavatory seats for junior children should be so constructed that they are not higher than 9 in. off the ground or foot-rest.
- (iii) A permanent full-time lavatory attendant should be appointed, who must continually be in attendance at the lavatory, especially the junior section, from half an hour before the school opens in the morning until half an hour after closing.

The duty of this attendant will be to supervise the lavatories and wipe the seats with a cloth and antiseptic solution after each user.

In smaller schools it may be possible to engage a "cleaner attendant."

- (iv) All lavatories should be locked when the attendant leaves.
- (v) No lavatory should have more than one seat or more than one hole in a seat.
- (vi) There should be an adequate supply of newspaper or sanitary paper available.
- (vii) Water closets should be made to the correct height, *i.e.*, 9 in. off the ground for small children, or with raised steps. All seats must be of the type where the front portion is cut away, with an opening of about 4 in.
- (viii) In the case of the pail system or pit privy closet, the height of the seat and the shape of the opening must be suitable for children.

- 4. The School Medical Inspection staff should be considerably increased throughout the country.
- 5. Education of teachers at Normal Colleges in connection with infectious diseases is necessary.
- 6. All new benches should be of the single seat type. The double desks still in use should be provided with a partition, which will prevent children sliding about. A good alternative is chairs and tables instead of benches.

B.—Institutions, including Hostels.

- (a) A careful medical examination or certificate on admission.
- (b) Separate bed accommodation under all circumstances, with proper supervision at night to ensure that children do not get into one another's beds.
- (c) The appointment of qualified hostel superintendents and matrons. It is desirable that such persons should be certificated, and all such appointments should be referred to the School Medical Inspectors for approval.
- (d) Separate towel, flannel, tooth brush, tooth paste, hairbrush, comb, soap, etc., should be provided for each child.
- (e) The same lavatory accommodation as in day schools, but in addition separate chambers for each child. The chambers should bear distinguishing marks.
- (f) Showers with hot and cold water in preference to baths. A minimum of one shower for every ten girls is desirable. Where baths are used

there should be clean water for each child, and the bath should be carefully swabbed after use. In the case of very young children, the nurse or nursery maid should wear a special overall when bathing children. No small child should ever be washed or dried sitting on the lap of the nurse.

A daily bath or shower, warm if necessary, under supervision, must be the rule at all hostels.

- (g) Care should be taken that children do not wear one another's under-clothing or use one another's bed-clothes. Where infection has occurred, all bed-clothes or clothing should be thoroughly disinfected, preferably by boiling.

It should be a routine matter that the matron shall scrutinise all underclothing and bedding for the presence of stains from a discharge.

- (h) Unless a temperature is taken by a doctor or school nurse, it should always be taken in the axilla, rarely in the mouth and never in the groin or rectum.
- (i) In the case of older girls; pails for sanitary towels should be provided, preferably the type where the lid is controlled by a foot pedal.

REPORT OF THE PRETORIA, DENTAL CLINIC.

1st July, 1937—30th June, 1938.

FOREWORD.

The Board of the Pretoria Dental Clinic is pleased to report a year of progress and increasing activity.

The new constitution governing the procedure of the Board was finally drafted and duly accepted by the Transvaal Provincial Authorities, the City Council of Pretoria, the Pretoria Branch of the Transvaal Dental Association and, the Board itself.

This constitution was submitted to the Federal Council of the Dental Association of South Africa and was unanimously approved by that body. The Federal Council of the Association has submitted copies to all its affiliated branches advising such branches to use the constitution as a model in connection with the establishment of all future public dental institutions.

After some unavoidable delay, the plans of the new Dental Clinic received approval and building operations commenced. It is anticipated that the new building will be ready for occupation towards the end of August, 1938.

In September, 1937, through the co-operation of the Board, the Pretoria Branch of the Transvaal Dental Association and the Committee of the Iscor Medical Benefit Society, an agreement was reached under which the labourers employed by Iscor, who are classed as semi-indigent persons, will be able to receive full dental services at the clinic.

The Board applied to the Provincial Authorities for an increase in the Grant-in-Aid, and the grant was increased to £1,000. The City Council has also increased its grant to £1,100 per annum.

The position has now been reached where Dr. Ockerse is quite unable to cope with the work which is urgently required by the children in the primary schools of the City. Whereas four years ago he examined approximately 9,000 primary school children each year, he is now faced with the examination of over 13,500.

It is obvious that, owing to the increased numbers, the amount of urgency extraction treatment required by these children has increased tremendously, with the result that he has been unable to keep up with the conservative and preventive treatment which is so essential in young children. For this reason the Board has appointed two full-time dental officers.

During the year the Board's notice was drawn to the lack of facilities in the City of Pretoria for the satisfactory dental treatment of non-Europeans. No provision can be made in the new dental clinic for such treatment and other methods of dealing with this matter are now under consideration. The dental condition of non-Europeans is undoubtedly becoming progressively worse, and the Board feels very strongly that suitable provision should be made for that section of the population. The co-operation of the Pretoria Branch of the Transvaal Dental Association has been sought in this matter and a committee has drawn up a preliminary report.

The Board extends its thanks to the members of the Pretoria Branch of the Transvaal Dental Association for the highly efficient honorary services which their members continue to give the Clinic. The members of the Branch have a very fine record of service which now extends over a period of some fourteen years. Without their help and assistance, the Dental Clinic of Pretoria could not have carried on. The Board appreciates the spirit of co-operation which has existed between the Provincial Authorities, the Civic Authorities and the Board.

1. The control and administration of the Dental Clinic remain the same as in the previous years.

2. The Grants-in-Aid have already been explained in the Foreword.

3. *STAFF.*

(a) Dr. T. Ockerse, full time dental surgeon.

(b) Honorary panel of sixteen doctors.

Members of the Pretoria Branch of the Transvaal Dental Association who give their services for treatment of indigent adults and pre-school going children from 9-11 a.m. daily except Saturdays.

(c) Panel B.

Consisting of sixteen dentists who are remunerated on a per session basis, and who treat semi-indigent persons who are able to contribute in part for the services they receive.

Sister J. S. Leviseur continues to act as Secretary-Nurse.

4. *TREATMENT OF INDIGENT ADULTS AND PRE-SCHOOL CHILDREN.*

The number of indigent adults treated at the Clinic during the year under review shows an increase on those treated during 1937 as the following tabulated lists will demonstrate :—

1937.							Pre-school children.	
No.	Extrac- tions.	Fill- ings.	Exam- inations.	Scal- lings.	Dentures.		No.	Extractions.
1,472	2,809	29	46	—	25 full upper and lowers. 6 full uppers. 4 full lowers. 1 partial. 20 repairs.		67	138
1938.								
1,836	2,998	35	89	5	36 full upper and lowers. 9 full uppers. 4 full lowers. 3 partials. 35 repairs.		55	139
<i>Iscor.</i>								
744	806	248	40	16	22 full upper and lowers. 14 full uppers. 1 full lower. 15 partials. 7 repairs. 14 gold inlays.		5	11

SCHOOLS.

The following is the report by Dr. Ockerse on the treatment of school children.

The number of schools visited has increased by one (namely, forty). Innesdale Intermediate Afrikaans Medium was added to the list. The number of children examined was 12,887. All the schools in Pretoria were visited twice during the year under review.

LECTURES.

Lectures and short talks on the care of the teeth and oral hygiene were given in most schools to the older children as the younger ones do not grasp the importance of healthy teeth and mouths. The majority of the younger indigent children do not even possess a tooth brush.

During my examinations it was found that the children in the grades suffer most from extensive decay in nearly all the temporary molars, and our greatest problem to-day is, how can the pre-school children be treated? We are not treating these children properly by extracting all decayed deciduous molars, when they enter the primary schools.

SUB-CLINICS.

A sub-clinic is held every Tuesday morning at one of the following schools :—

Mayville, Pretoria North, Hermanstad, Robert Hicks, Blood Street, Eendracht, Silverton, Eloffsdal, Wonderboom South, Villieria, Gymnasium Junior, West End Junior, President Kruger, Generaal Nicolaas Smit, Claremont, Mountain View and Derdepoort.

These sub-clinics are held for the benefit of the smaller children. The parents find it very difficult to bring their small children to the Clinic in the City from outlying suburbs. These sub-clinics are a great success and conducted at no extra expense to the Clinic.

COUNTRY SCHOOLS.

The following country schools were visited during the year under review :—

Bekker School Farms and Mooiplaas School.

145 indigent children received dental treatment, 216 teeth were extracted and 59 fillings were done.

STATISTICS.

The following are the statistics of the indigent children who received attention during the year under review :—

No.	Extractions.	Fillings.	Examinations.	Scalings.	Dentures.
3,921	5,179	628	12,887	—	—

CO-OPERATION OF PRINCIPALS, ETC.

I cannot speak too highly of the co-operation and assistance always given me by the Principals and Staffs of the primary schools, the Education Department and the Chief Medical Inspector of Schools.

GENERAL.

In conclusion, I wish to draw the Board's attention again to the appalling state of the oral condition of the children in most schools.

Very little conservative treatment is done now as most of my time is taken up extracting teeth for the alleviation of pain and the removal of oral sepsis.

The number of schools is increasing yearly, and I am unable to cope with the work. In 1933 the number of children examined in the primary schools was approximately 9,300, in 1937 this number had increased to nearly 13,000.

I strongly recommend that another dental surgeon be appointed to assist me.

ISOLATION WARDS.

The Isolation Wards consist of three main sections—two for Europeans and one for non-Europeans. There is accommodation for both males and females in each of the sections, totalling seventy beds in all.

Arrangements for the control are the same as reported in previous years. The Council's Medical Officers are responsible for the treatment of its isolation cases.

A continuous supply of hot water has been installed in the different wards, at a cost of £1,186 19s. 3d. Steam has now been provided in the theatre as well as in the sterilizing rooms of all of the sections.

The additional equipment, as was recommended last year, has now been provided. Each section is fitted with crockery sterilizers instead of the crockery sinks previously used. Six bed-pan sterilizers have been provided—two in each section. Each section has been supplied with a bowl steam sterilizer.

The hedges along the external and internal fences of the ground are growing well and are already providing additional and wider lines of separation of the grounds from those of the General Hospital. The lawn in front of the European wards is now well established.

CASES TREATED IN THE WARDS DURING THE YEAR WERE:—

		EUROPEANS.		Non-EUROPEANS.	
		1937/8	1936/7	1937/8	1936/7
Chicken Pox		6	1	22	11
Venereal Disease		19	26	37	25
Other non-infectious diseases		36	47	46	56
Mumps		10	5	4	5
Puerperal Sepsis		21	9	22	10
(Includes pneumo-thorax admissions)					
Pulmonary Tuberculosis		54	39	24	26
Impetigo		1	—	—	2
Typhoid Fever		51	59	39	40
Whooping Cough		16	14	—	4
Diphtheria		51	32	3	6
Measles		66	16	39	4
Influenza		25	14	3	7
Scarlet Fever		56	32	—	1
Anthrax		1	1	—	3
Infection of Eyes		—	—	—	1
Encephalitis Lethargica		2	1	1	—
Malaria		8	1	—	2
Erysipelas		35	37	6	—
Cerebro-spinal Meningitis		—	—	6	4
Typhus Fever		3	4	—	—
German Measles		10	2	1	—
Pneumonia		1	4	1	1
Poliomyelitis		2	1	—	—
Ophthalmia Neonatorum		1	2	6	—
Malta Fever		1	—	—	—
Leprosy		1	—	—	—
Amaas		—	—	1	—

The total number of cases treated as in-patients at these wards was 738; 319 of the cases, 190 Europeans and 129 non-Europeans, were admitted from outside areas and 420 were Pretoria residents.

ABATTOIR.

1. Meat Supplies.

The following animals were slaughtered during the year :—

	Oxen.	Cows.	Bulls.	Calves.	Sheep.	Goats.	Pigs.
1936-37 ..	23,674	6,321	610	2,504	96,312	1,446	13,325
	22,600	4,886	463	2,258	92,885	799	10,796
					1936-37	1937-38	
Total animals	..	..	..	134,687	144,192		

Carcases, organs and parts condemned :—

	Cattle.	Calves.	Sheep	Goats.	Pigs.
Entire carcases	574 (426)	4 (—)	43 (95)	1,214 (933)	
Quarters	10 (32)	(—)	12 (54)	— (—)	
Plucks	974 (1,024)	(—)	976 (1,501)	— (2)	
Livers	3,025 (2,666)	(—)	10,783 (10,655)	1 (17)	
Lungs	1,062 (1,062)	(—)	2,132 (2,794)	— (—)	
Heads	1,011 (996)	(—)	— (—)	133 (71)	
Tongues	992 (997)	(—)	— (—)	132 (70)	
Hearts	99 (75)	(—)	— (—)	2 (—)	
Kidneys	6 (15)	(—)	— (—)	— (—)	
Tails	12 (4)	(—)	— (—)	— (—)	
Udders	1 (5)	(—)	— (—)	— (—)	
Viscera	56 (51)	(—)	— (—)	— (—)	
Tripes	4 (—)	(—)	— (—)	— (—)	
Intestines	6 (4)	(—)	— (—)	— (—)	

The figures for 1936-37 are given in brackets.

Imported Meat Examined :—

		Beef.	Veal.	Mutton.	Pork.
Entire Carcases .. .. ..	.. .. ..	15	2	125	569
Quarters .. .. ..	.. .. ..	54	—	—	—
Joints .. .. ..	.. .. ..	981	—	525	2,968

Of the above the following were condemned :—

4 Pigs for measles.

2 Pigs' heads and tongues for localised Tuberculosis.

Diseases encountered :

(a) The percentage of carcases condemned for all diseases was as follows :—

	Cattle.	Sheep and Goats.	Calves.	Pigs.
1937-38	1·875%	·440%	·159%	9·110%
1936-37	1·140%	·101%	—	8·623%

(b) The incidence of disease :—

Tuberculosis :

		Cattle.	Pigs.
Total occurrences .. .. ..	.. .. ..	96 (97)	147 (90)
Percentage .. .. ..	.. .. ..	0·313 (0·347)	1·103 (0·834)
Generalised .. .. ..	.. .. ..	51 (50)	14 (10)
Percentage .. .. ..	.. .. ..	0·166	0·110
Localised .. .. ..	.. .. ..	45 (47)	133 (80)
Percentage .. .. ..	.. .. ..	0·147	1·00

Cysticercosis :

Total occurrences .. .. ..	.. .. ..	1,278 (1,193)	1,097 (926)
Percentages .. .. ..	.. .. ..	4·175 (4·268)	8·232 (8·586)
Number condemned .. .. ..	.. .. ..	391 (254)	all
Number detained for freezing .. .. ..	.. .. ..	887 (939)	—

(Figures for 1936-37 are shown in brackets.)

One case of Suifilaria Suis was diagnosed and the carcase was condemned on account of the extent of the infection.

Compared with the previous year, there is a slight decrease in the incidence both of Tuberculosis and of Cysticercosis in cattle. This may possibly be due to the encouragement given to cattle farmers by the Central Government through the beef export and cattle improvement schemes whereby progressive farmers are encouraged to produce a better class of beef animal, which in turn encourages improved husbandry. The institution by the Government of a voluntary grading system now in operation, will tend to further advances in this direction. Another advantage of these measures already noticeable is the improvement in the quality of the meat offered to the public.

Other Diseases :

Actinomycosis : There were 56 localised cases ; the portions affected were condemned.

Carcinoma : There was one carcase of a cow.

Defective Bleeding : Three carcases of beef and 18 sheep were condemned.

Emaciation : 93 carcases of beef and 7 sheep were condemned.

Extensive Bruising : 12 carcases beef, 7 quarters, 6,482 lbs. beef, 1 sheep, 8 quarters, 10 lbs. mutton : and 2 pigs, 2 quarters, 129 lbs. pork were condemned.

Caseous Lymphadenitis : 1 sheep and 6 quarters of mutton were condemned and 5,416 sheep were affected.

Gangrene : 4 carcases beef were condemned.

Icterus : 12 sheep, 2 pigs and 1 calf were condemned.

Immaturity : 1 calf was condemned.

Multiple Tumors : 1 calf was condemned.

Oedema : 1 carcase beef and 2 pigs were condemned.

Peritonitis : 7 carcases beef were condemned.

Pyaemia : 4 carcases beef and 1 calf were condemned.

Pigmentation : 2 pigs were condemned.

Redwater : 1 carcase beef was condemned.

Septicaemia : 4 carcases beef and 2 sheep were condemned.

Suppurative Pericarditis : 1 carcase beef was condemned.

Gangrenous Metritis : 1 carcase beef was condemned.

INSPECTION OF BUTCHERS' SHOPS BY THE MEAT INSPECTORS.

During this year 1,965 inspections of butchers' shops were carried out. This system of inspection by the Meat Inspectors in co-operation with the visits of the Health Inspectors, has a most excellent effect and assists in the maintenance of a high standard in the sale of meat throughout the City.

SALE OF MEAT INFECTED WITH MEASLES.

This question was fully discussed by the Health Committee during the month of September.

It was considered necessary that steps should be taken to minimise the incidence of the disease and to deal with the question of insurance of cattle against measles and the labelling of meat which had been frozen in order to kill the measles cysts.

As an outcome of this, the Medical Officer of Health and the Veterinary Officer read papers at the Transvaal Municipal Association at Boksburg on the 5th October, 1937. A paper was also read by Dr. Mönnig from Onderstepoort.

In connection with the spread of the disease, it was suggested that—

- (a) Greater care in the control of meat consumed on farms and in small outlying places where there is no meat inspection be exercised.

- (b) Adequate latrine accommodation, especially on farms, be provided throughout the country, and
 (c) The public be educated in regard to the spread of the infection ;
 the farming community to pay special attention to the fact that an infected farm, through lack of proper latrine accommodation, becomes a reservoir of infection for cattle.

The insurance and labelling of such meat was also discussed, and after reading the Paper, the Congress decided to pass the following resolutions :—

- (1) That concerted action be taken by local authorities to abolish all insurance schemes against measles in beef (*cysticercus bovis*) and pork (*cysticercus cellulosae*).
- (2) That the Government institutes a campaign against the disease in animals by educating the farming community as to the cause and prevention of the disease. This instruction to be in the form of publications, pamphlets, lectures and moving pictures.
- (3) That all frozen meat be stamped as such with a running stamp.

These resolutions were subsequently adopted by the Executive of the Transvaal Municipal Association and the Child Welfare Congress.

MILK SUPPLY AND DAIRY CONTROL.

The year under review has been marked for several happenings that are bound to have considerable influence on the milk trade. The attempts by the dairymen themselves to organise their trade appears to have been abandoned and the interest of the dairy trade is now focussed on the draft ordinance for the control of marketing of dairy products, published under Government Notice No. 2499 of January, 1938. While they are by no means unanimous as yet, the adoption of such a scheme, whatever its merits or demerits in other respects, will facilitate the work of this Department in controlling milk supplies and be of considerable aid in obtaining data of the surplus milk available for distribution under the schools milk scheme. This scheme has been more or less in abeyance on account of the difficulty of obtaining regular supplies.

The Government scheme for the eradication of Tuberculosis in cattle has made further progress during the year, and it is hoped that it will come into operation before long.

The number of dairy licences approved by the Department during the year totalled 180, which are divided as follows :—

	Total.	Urban.	District approximately 30-mile radius.	Distant beyond 30 miles.
Producers only	81 }	1	74	6
Producer-distributors	53 }	33	20	—
Distributors only	46	46	—	—

Of the thirty-three urban producer-distributors, three are on Municipal farms on the Town Lands and only technically in the urban area. The figures show a decrease of sixteen in the total number of licences—ten being producers and six distributors. The number of urban producers has decreased by twelve. Every endeavour is made to encourage milk production outside, and to reduce the number of animals in the City area by not approving of new licences for urban cow sheds.

There are approximately 5,200 cows on licensed premises, the number being subject to much fluctuation and the average daily quantity of milk handled is in the neighbourhood of 8,500 gallons.

During the year, an agreement was made with the Union Defence Department whereby suppliers of milk to Roberts Heights must also be licensed by the City authorities and controlled by this Department. This has removed an anomaly of some years' standing.

Pasteurization :

Two large distributing depots have installed pasteurization plants and handle between them approximately 1,200 gallons of milk daily, or nearly one-seventh of the City's supply. In addition, all milk delivered at Roberts Heights is pasteurized. Only pasteurized milk is distributed to school children under the Government Subsidy Scheme.

Owing to the difficulty of assembling the combined surplus milk of the City, this school milk scheme has suffered many setbacks, and it is felt that only under a control scheme, whether it be of the producers themselves on their own initiative, a Government Control Board, or a Municipal Milk "Abattoir," will this problem be satisfactorily solved.

Inspection of Dairies :

All dairy premises have been regularly visited by the Dairy Inspectors to control the hygiene of milk production and to advise dairymen with regard to construction and methods.

Veterinary inspection of the herds has been continued. Three cases of clinical Tuberculosis were found and destroyed. In the case of Mastitis, owners are instructed to isolate cases of acute Mastitis and advised to slaughter chronic cases with fibrosis of two or more quarters.

Tuberculosis :

There are at present two large dairy herds certified free from this disease. In addition, one of these is also free from contagious abortion. Two other large producers have signified their intention of applying for a Government Tuberculosis test and to establish Tuberculosis-free herds.

General :

To ensure a milk supply that is plentiful, clean and safe is the aim of every health department. Dairying is a highly specialised type of farming, and there is no room for the ill-equipped, back-yard or "part-time" dairy business. The number of these is decreasing rapidly in Pretoria, but there are still too many of them, and it is hoped in time to eliminate them entirely. The ideal would be to have dairying confined to farms surrounding the town.

Cleanliness depends on personal supervision and suitable equipment, which are impossible when the dairy is the part-time occupation of an artisan or a clerical worker.

The efforts of the Department are directed towards a high standard of cleanliness and to eliminate diseases of cows transmissible to man, nevertheless it is felt that adequate pasteurization of all milk supplies must be aimed at. The public is advised by means of public lectures to demand the highest standard, to insist on pasteurization and to be prepared to pay more for the best.

COMPOUND HOSPITAL RETURNS.

The Assistant Medical Officer of Health attends the Compound Hospital, Proes Street, for non-European Council employees where out-patient services are provided.

The following are the details of the work carried out here :—

			1936-7	1937-8
No. of boys injured on duty and treated at Compound Hospital	..	..	296	300
No. of boys injured on duty and sent to General Hospital	..	..	71	72
No. of boys injured off duty and treated at Compound Hospital	..	..	129	165
No. of boys injured off duty and sent to General Hospital	..	..	38	33
No. of sick boys treated at Compound Hospital	..	..	67	127
Total number of boys seen by doctor at Compound Hospital	..	..	1,221	1,233
Total number of attendances at Compound	..	..	4,868	4,554

PRETORIA NURSERY SCHOOLS.

Extracts from the Annual Report of the two Nursery Schools by the Chairwoman, Dr. Ruth Arndt.

Frederick Street Nursery School.

With the funds raised by the Pretoria Parents' Association through its White City Fete in September, 1936, and also a liberal grant from the Pretoria Child Welfare Society, a branch of the Pretoria Nursery School was opened at the Child Welfare Shelter, Christoffel Street, in January, 1937. Miss Sybil Pearson, a graduate of Gypsy Hill Training College, London, was specially brought out from England and was assisted by Miss Elsie Clark, formerly of the Good Hope Centre. In addition to the Shelter children, outside children were also admitted to the nursery school, the latter ultimately exceeding the former in number.

Miss Pearson, who had been appointed for a year only, was allowed to return a few weeks before the close of the year on account of serious family illness at home. Miss Clark thereupon took over the control of the school, which began the present year with an enrolment of 18 children, increasing to 25 by the end of February. This is as large a group as one teacher single-handed can possibly manage. Of these, 7 children remain for lunch and afternoon session.

Enrolment for the Year was as follows :—

			Shelter Children.	Outside.	Total.
April to June (at Shelter)	..	..	18	10	28
July to October	..	..	13	22	36
November to December	..	..	17	20	37
January to March	..	..	—	25	25

Accommodation and Equipment.

The house consists of two playrooms ; a kitchen, which has been converted into a wash-room ; an office, which is used for the health services of the school ; adequate lavatory and bathroom accommodation ; and large back and front stoeps. There is also a garage which is used to store the outside toys and as a children's workshop.

The grounds are large and the children's play is in no way restricted by lack of space.

The school has a fair amount of equipment, including a sand pit, see-saw, climbing apparatus, two swings, horizontal bar and several large outdoor toys, as well as a supply of indoor play material.

Feeding.

Each child receives half a pint of milk (under the State-aided Milk Scheme) and a rusk daily, and cod liver oil three times a week. The following is a sample of the weekly menu for children who remain till 3.30 p.m. :—

- | | |
|------------------|--|
| <i>Monday</i> — | — Grated carrot and beetroot.
Jelly and custard. |
| <i>Tuesday</i> | — Tomatoes with lettuce and grated cheese.
Fruit salad. |
| <i>Wednesday</i> | — Potato salad.
Fruit and Junket. |
| <i>Thursday</i> | — Grated carrot and beetroot.
Prunes and custard. |
| <i>Friday</i> — | — Tomatoes and lettuce.
Fruit jelly. |

Brown bread and butter is served with each meal.

Running Expenses.

The nursery school, as run at present, with only one teacher and no assistant, costs approximately £30 per month. As there is an enrolment of 25 children, the cost per child per year is roughly £14, towards which the Provincial Administration contributes £3 per child, leaving £11 to be raised by other means. A small amount is derived from the following fees :—

Morning session only	1/6 per week.
Full day	3/- per week.

A reduction is made in the case of two children in one family, also when the circumstances of the parents demand it.

Good Hope Nursery School.

Enrolment.

The pioneer institution in Good Hope has in the six years of its operation so well fulfilled its function of demonstrating to Pretoria the value of pre-school child care, that the demand it has created has far outrun the accommodation available.

The school was built for 25 children which, with the one teacher now employed, is all that can suitably be taken care of there.

An afternoon session has been conducted throughout the year, 22 of the 25 children returning after lunch for afternoon nap and play period.

Attendance and Health.

Average attendance for the year has been 85 per cent., which is very high for a nursery school, where a close watch is kept on the children's health, and they are sent home at first sign of colds or any other illness. No serious illness has broken out during the year. Infectious cases were : 1 case of measles, 1 of German measles, 1 of ringworm, and 1 of chicken-pox. The usual colds have been less prevalent than formerly.

Parent Co-operation.

The parents of the nursery school children gave help by selling used clothing at two jumble sales, and also out-of-hand. They made twenty-five dresses for a school concert and clothing for school dolls. One of the parents for several months did the school laundry without charge. They also helped in the distribution of State-aided butter at Eendragsaal once a week.

Two social evenings were held during the year and three lecture evenings, when Professor J. C. Bosman addressed the parents on child training problems.

Finance.

The two nursery schools, even under present conditions with insufficient staffing in both schools, are a very heavy burden for the Pretoria Nursery School Committee to carry.

The schools, which are run on a common budget, are dependent for their income upon : a Municipal grant-in-aid, a Provincial *per capita* subsidy, money-raising functions largely undertaken by the Pretoria Parents' Association, a few private donations from charity funds, and small contributions from the parents of the children.

The Frederick Street branch, as has been seen, owed its inception to an extraordinary effort of the Parents' Association, and at the outset received financial aid from the Child Welfare Society ; but this latter help has, in the course of events, naturally been withdrawn. There has been no increase of the Municipal grant-in-aid which was originally given for the Good Hope School alone. The Provincial subsidy is insufficient to pay even the rent of the second school.

During the past year it was necessary, in order to balance the joint budget, to hold no fewer than ten functions, viz., two jumble sales, a school concert, a school dance, physical education display, morning market, Metro Hotel dance, street collection, and revue in City Hall, the total amount realised from all these undertakings being roughly £300.

These efforts represent a tremendous amount of work, and it is not to be expected that any organisation can keep on at this rate indefinitely. Nevertheless, we owe it to the community to continue the services we are providing and to extend them even further until ultimately there will be a branch of the nursery school in every ward of Pretoria.

To enable this voluntary Committee to carry out its programme of social service and to relieve it somewhat of the very heavy financial responsibility and worries resting upon it, the City Council should accordingly be asked to increase its grant to £900.

At all these centres a programme of parent education, with classes for fathers and mothers in child care and training will be developed in the course of time. Other facilities should be made available at these centres in the form of Pre-Natal and Infant Welfare Clinics and clubs of various kinds, e.g., gymnastic, dramatic, art and the like, for the youth of the area, until real community centres have been built up, which will keep the youth off the streets and out of mischief and make of them much better citizens. It will be remembered that this community centre idea was part of the original plan when the first grant-in-aid was made to the nursery school seven years ago. The opportunities for constructive social welfare work, revolving round the nursery schools, are limited only by lack of sufficient funds and suitable leaders and helpers.

Visitors.

Visitors have called at both schools in considerable numbers during the year at Frederick Street; the visitors' book shows more than fifty names. Good Hope School had, among others, callers from India, England and Australia. Her Excellency, Lady Duncan, honoured both schools with a visit.

In conclusion, special thanks are due to the Municipal Health Department for its valuable assistance during the year and especially to Dr. Nelson for all the time and energy he devoted to the affairs of the nursery schools, acting as Chairman of the Committee for eight months during the Chairman's absence.

I am pleased to be able to state that the Pretoria City Council has made provision in the 1938/9 Estimates for a considerable increase in the grant given at present. It is therefore hoped that before long, provided that the Provincial grant is also increased and the Union Government lends support, new nursery schools will be established in all the suburbs.

BACTERIOLOGICAL EXAMINATION OF MILK.

(Samples taken under the Dairy By-laws.)

The Pretoria standard is as follows :—

Not more than 200,000 organisms per c.c. are permitted, and there should be no *B. coli* in 0·01 c.c.

During the year 415 samples were taken, of which 374 were up to standard. Of the 41 unsatisfactory samples, 5 resulted in prosecutions and in 36 cases where the samples were slightly below standard, warnings were given.

CHEMICAL ANALYSIS OF MILK.

(Samples taken under Food and Drugs Act.)

426 samples were submitted for analysis and of these 72 were below standard. In 31 cases, legal proceedings were instituted and fines totalling

£91 10s. 0d. were imposed. Severe warnings were given in the 9 remaining cases where the samples did not warrant prosecution.

BACTERIOLOGICAL EXAMINATION OF ICE CREAM.

The standard set in Pretoria is the same as for milk.

During the year 46 samples were analysed and 39 of these found up to standard. In two cases, where the ice cream was only slightly below the standard, warnings were given and in 5 cases the sellers were prosecuted.

CHEMICAL ANALYSIS OF ICE CREAM.

24 samples were taken during the year; 17 were satisfactory. In the 7 remaining cases, legal proceedings were instituted, resulting in the imposition of fines totalling £25 10s. 0d.

C.F. (TYPHOID) TESTING OF DAIRY EMPLOYEES FOR THE PREVENTION OF THE SPREAD OF TYPHOID FEVER BY MILK.

In last year's Report a description was given of the important step which had been taken by the Pretoria City Council in connection with the control of typhoid fever and the production of safer milk by the institution of a scheme whereby all dairy employees are tested for the typhoid fever carrier state. This scheme is subsidised by the Pretoria City Council to the extent of more than half of the cost per test.

It is pleasing to report that this additional method of control has so far proved to be a success, and that the scheme and the legislation which has been promulgated has met with the approval of the dairymen and is working very smoothly.

As a result, no less than 53 dairies have sent in 724 employees to be tested. Of this number, 69 have given a positive C.F. result and 655 were negative.

The positives were debarred from any trade or occupation involving the handling of foodstuffs, until further prolonged examinations revealed them to be free from typhoid bacilli.

24 dairies have already been issued with permits to label their milk "Typhoid Tested."

STATE-AIDED BUTTER SCHEME.

As mentioned in last year's Report, a meeting of the various charitable organisations of the City was called during June, 1937, with a view to distributing State-aided butter to necessitous persons living within the Pretoria Municipal area. It was then decided to commence with six depots, as follows :—

Child Welfare Clinic Rooms, Health Department.

Municipal Hall, West End.

Eendragt Hall, Good Hope.

Government School, New Muckleneuk.

Salvation Army Hall, Gezina.

Salvation Army Depot, West Street.

These depots are run by ladies belonging to the Health Department, Pretoria Benevolent Society, Guild of Loyal Women, Nursery School and Salvation Army. The depots are open on Mondays between the hours of 3 p.m. and 4 p.m., with the exception of the Salvation Army Depot, West Street, which, by special arrangement, is held on Thursdays.

Butter is available at—

6d. per lb. for First Grade.

5d. per lb. for Second Grade.

4d. per lb. for Third Grade.

Families entitled to receive butter must not have a daily total income of more than 8s., and the scale of issue is :—

Families consisting of from one to three persons ..	1 lb. per week.
Families consisting of from four to five persons ..	2 lbs. per week.
Families consisting of six persons and over ..	3 lbs. per week.

The scheme at present only allows of a total weekly issue of 3,000 lbs.

During the month of November, 1937, it was found that owing to the great distances in the Northern suburbs, an additional depot was required, and, under the control of the Child Welfare Society, the one established at Villieria has amply justified itself.

The whole scheme is under careful control and has proved of inestimable benefit to the poorly paid members of the community, most of whom could never have provided butter for their families at the ordinary prices. It is felt that this scheme has been a very real contribution towards the improvement of the nutrition of that section of the population of the City.

The number of applications is now considerably in excess of the quantity of butter available for the Pretoria Committee, and it is hoped that larger supplies will be allocated at a later date.

The courtesy and assistance given by the Manager of the State-aided milk and butter scheme, Mr. P. L. Nutt, have been greatly appreciated.

STATE-AIDED MILK AND BUTTER SCHEMES.

This Department has in the past year made representations to the Council, Rotary Club, Health Conference and Red Cross Conference in Johannesburg, and the Child Welfare Conference in Pretoria, requesting the support of these organisations in an application to the Government that Natives should be included in the surplus milk and subsidised butter schemes. At present this scheme is only extended to Europeans, Cape Coloureds and Indians.

In the Transvaal, the non-European population consists in the main of Natives, who earn on an average about £2 to £3 per month. Their major health problems arise from an inadequate supply of the ordinary food requirements.

I am pleased to state that all these bodies were unanimous in supporting this application to the various Government departments. It is hoped that this will have the desired effect.

INSPECTION OF LIVE AND DRESSED POULTRY AND GAME BIRDS ON THE MARKET.

The accompanying table gives the monthly returns of poultry and game birds sold on the morning market, together with the respective numbers condemned as unfit for consumption. The provision of suitable display cages to accommodate live poultry for sale is at present under consideration. Poultry could then be more attractively displayed for the buying public and it would ensure of each bird being handled and examined before sale.

Inspection of dressed poultry is hampered by the absence of any by-law or health regulation governing the manner in which this important article of food must be presented for sale. At present the state of preservation is the only guide to soundness. Other large Municipalities will be approached to make provision in the by-laws to lay down that dressed poultry and game birds presented for sale must have the head and legs intact, and if drawn be accompanied by the liver, spleen, heart and gizzard wrapped separately in grease-proof paper. It is further suggested that all dressed poultry and game birds offered for sale, be subjected to inspection as in the case of other types of meat.

YEAR.	LIVE POULTRY.		DRESSED POULTRY.		DEAD GUINEA FOWLS.	
	Number Sold.	Number Condemned.	Number Sold.	Number Condemned.	Number Sold.	Number Condemned.
1937—1938						
1937—						
July	8,666	22	1,792	—	997	9
August	6,697	13	1,355	—	396	21
September	9,036	15	1,319	1	—	—
October	9,233	3	2,229	11	—	—
November	10,410	9	2,156	312	—	—
December	14,831	25	1,707	130	—	—
1938—						
January	8,606	10	1,125	153	—	—
February	10,167	34	1,568	24	—	—
March	11,375	37	905	8	—	—
April	10,768	35	1,206	25	16	—
May	7,234	33	886	20	64	10
June	11,415	27	2,133	39	433	13
TOTAL	118,438	263	18,381	723	1,906	53

CONVEYANCE OF POULTRY BY RAIL.

For some time official of this Department have been concerned about the manner in which live poultry is sent to the market. Many cases of overcrowding and of other forms of gross cruelty due to broken and otherwise unsuitable crates have been encountered.

Injured birds can be seized and destroyed, but apart from this there is nothing this Department can legally do to penalise these consignors. There are no public health regulations defining minimum standards for crates. Attempts were made in the past to interest officials of the Society for Prevention of Cruelty to Animals in the matter, but probably owing to the distance from Pretoria of the offenders, action has always been deferred.

The South African Railways Administration has definite regulations defining minimum standards of crates for conveyance of poultry by rail. On representations made by this Department, the General Manager has undertaken to give instructions for more strict enforcement of these regulations in future, and he has asked for cases of contravention of the regulations to be brought to his notice for the necessary action. It is felt that this should have the desired effect.

DEPARTMENTAL SUPERVISION OF FOODSTUFFS.

The following samples were examined on behalf of the Health Department by the Government and Municipal Analysts during the year, namely :—

No. of Samples taken.	Nature of Article.	Satisfactory.	Unsatisfactory.
426	Milk	354	72
7	Cream	5	2
24	Ice cream	17	7
14	Coffee	14	—
12	Flour	12	—
4	White Pepper	4	—
20	Minced Meat	18	2
14	Sugar	14	—
8	Rice	8	—
4	Raisins	4	—
4	Sultanas	4	—
7	Ginger	5	2
2	Ground Ginger	2	—
6	Honey	6	—
4	Bread	4	—
17	Sausages	16	1
7	Icing Sugar	7	—

No. of Samples taken.	Nature of Article.	Satisfactory.	Unsatisfactory.
2	Polony	2	—
1	Orange Cordial	1	—
1	Lemon Squash	1	—
4	Cheese	4	—
8	Boermeal	8	—
2	Dried Fruit	2	—
1	Dried Peaches	1	—
2	Dried Apricots	2	—
1	Dried Pears	1	—
4	Butter	4	—

Licensed Premises in the City. In Locations.

Bakers and Confectioners	..	..	..	..	..	26	4
Butchers	..	..	..	..	..	65	11
Restaurants	..	..	..	..	..	66	2
Hotels	..	..	..	..	..	17	—
Tea Rooms	..	..	..	..	..	76	11
Native Eating Houses	..	..	..	..	..	6	4
Food Purveyors	..	..	..	..	..	212	64
Fishmongers	..	..	..	..	..	6	—
Fruiterers	..	..	..	..	..	184	37
Bioscope Tea Rooms	..	..	..	..	..	2	—
Hawkers and Pedlars	..	..	..	..	..	51	107
Mineral Water Factories	..	..	..	..	..	5	—
Grain Millers	..	..	..	..	..	3	—
Boarding Houses	..	..	..	..	..	441	—
Laundries	..	..	..	..	..	9	9
Public Halls and Theatres	..	..	..	..	..	12	6
Billiard Rooms	..	..	..	..	..	3	—
Asiatic Tea Rooms	..	..	..	..	..	2	—

WATER SUPPLY.

The same high standard of the quality of the Pretoria water supply has been maintained throughout the year. Water is bacteriologically examined at regular weekly intervals and there was not a single sample which could be regarded as unsatisfactory.

Laying on of Town Water Supply.

Bacteriological examinations revealed that a large number of wells were grossly contaminated, and notices were served on the owners to connect up with the town water supply.

In such cases where the owners could not afford the cost of installing town water supply, the Council was asked to consider the question of granting loans for this purpose. This was agreed to and arrangements have been made whereby the town water supply can now be laid on on very easy terms. The cost is approximately £4 and this is payable over a period of four years.

MUNICIPAL WASH-HOUSES.

This institution is still functioning in the same satisfactory manner as before.

Various improvements have been effected to the premises including the tiling of the internal walls and provision of ceilings in the washing apartments.

These wash-houses continue to serve a very useful purpose.

SANITARY AND RUBBISH REMOVAL SERVICES.

During the year under review, the revised Sanitary and Rubbish Removal By-law has come into operation. This by-law controls the storage, removal and disposal of all classes of rubbish, stercus, dead animals, service of vacuum tanks, etc.

Provision is also made for the hiring of regulation pattern rubbish bins for household refuse at the rate of 1s. per bin per quarter. This relieves property owners of the cost and inconvenience caused when defective bins have to be repaired or replaced. Up to June, 1938, 7,000 of these were issued and further applications are being received daily.

Removal services are compulsory and are carried out daily or bi-weekly according to requirements.

At the close of the year ending June, 1938, the number of rubbish removal services were :—

In town and suburbs	..	..	..	..	13,763
In Locations	..	..	..	..	1,398
Making a total of	..	..	..	..	15,161 Services.

The average quantity of refuse removed was 261 tons per day at a cost of 6s. 2d. per ton. Eight new covered motor vehicles were in operation daily.

CONSERVANCY SYSTEM.

At the close of the year, June, 1938, 6,772 stercus removal services were carried out, of which 150 were nightly and 6,622 were alternate night services. The total number of services carried out show a decrease of 350 on the previous year's figure, owing to more premises having been connected to the water-borne system.

The number of premises on the conservancy system is :—

Town and suburbs	..	..	..	..	5,795
Locations	..	..	..	..	977
Making a total of	..	..	..	..	6,772

DRAINAGE.

The water-carriage system of house drainage has been installed during the year in an additional

- 917 private dwelling houses ;
- 92 business premises ;
- 223 flats.

Twenty-four miles of sewer pipes were laid.

SEWAGE WORKS REPORT.

Table I gives particulars as regards :—

- (a) Daily average sewage flow.
- (b) Raw sludge drawn off daily from the six sedimentation tanks and pumped into the sludge digestion tanks.
- (c) Ratio of sludge to raw sewage expressed as percentage by volume.
- (d) Screenings not disintegrated by the stereophagus pumps and retained on $\frac{1}{2}$ -in. bar screens—disposed of by burial.
- (e) Grit removed twice daily from detritus channels, screen chambers and sumps—disposed of by dumping.
- (f) Rate of dosage of settled sewage on to biological filter beds.
- (g) Stream water measured over the Daspoot Weir, consisting of the Aapies Stream, Steenhoven and Skinner Spruits, plus Filter Bed Effluent.
- (h) Ratio of dilution of final effluent to stream water.
- (i) Rainfall as measured at Sewage Works.

The increase in the daily average flow over last year's figure is 4 per cent., which is lower than was anticipated. The total rainfall recorded during the year was 23.48 inches, compared with 28.15 inches for the previous year. Although Pretoria is served by a separate stormwater drainage system, the amount of storm-water gaining access to the sewerage system during heavy downpours is excessively great. This results in serious complications at the works at such times when the plant has to deal with these high rates of flow, for which it was not designed. This matter is of very great importance, and demands a thorough investigation into the problem of how and where stormwater is allowed to run down the sewers, in spite of drainage by-laws to the contrary.

Sewage Analysis.

Table II gives the summarised results of analyses carried out once a month on samples collected over twenty-four hours. For these analyses it is necessary to obtain in each case, one sample which is truly representative of twenty-four hours' flow. This is extremely difficult under the existing conditions. However, the method of sampling in use up to date can be improved upon, and this will be done by the commencement of the next year. This will affect mainly the raw sewage analysis figures, which can therefore be expected to be somewhat different in next year's averages.

Sludge Digestion.

With the object of overcoming foaming troubles in the digestors in winter and to bring up the degree of digestion, one set of the old rectangular digestion tanks has been brought into commission again. This has increased the total digestion tank capacity from 100,000 cubic feet to 150,000 cubic feet. The four circular tanks during winter have ceased and a more thoroughly digested sludge is drawn off from the secondary tanks on to the drying beds.

Sludge as Fertiliser.

The sale of sludge as fertiliser has been placed on a sound basis, the only drawback being that the demand far exceeds the supply. During the year, 3,060 cubic yards of dried digested sludge, as removed from the drying beds, were sold to farmers and gardeners at one shilling per cubic yard. In addition, a hammer mill has been installed for pulverising the dried sludge so that it can be used more effectively as a manure in private gardens. Approximately twelve hundred bags of this pulverised sludge were sold at one shilling per bag during the year.

TABLE I.

MONTH.	Sewage Flow.	Raw Sludge.	Sludge.	Screenings.	Grit.	Filter Dosage.	Daspoort Weir.	Ratio of Dilution Effluent to Stream Water.	Rainfall at Sewage Works Inches.
	Daily Average Gallons.	Daily Average Gallons.	Sewage Per-cent-age.	Cub. Yard per Mill. Galls.	Cub. Yard per Mill. Galls.	Galls. per Cub. Yard per day.	Daily Average Gallons.		
1937									
July	...	2,305,000	17,300	0.75	0.85	0.47	87	6,235,000	1 : 1.73 0.00
August	...	2,403,000	19,900	0.83	0.83	0.54	91	5,805,000	1 : 1.42 0.00
September	..	2,361,000	20,500	0.87	0.90	0.57	89	5,487,000	1 : 1.34 0.70
October	..	2,440,000	20,700	0.85	0.79	0.57	92	8,451,000	1 : 2.49 3.02
November	..	2,555,000	20,200	0.79	0.65	0.50	97	6,171,000	1 : 1.43 0.68
December	..	2,646,000	20,400	0.77	0.70	0.47	100	13,646,000	1 : 4.20 6.09
1938									
January	..	2,729,000	18,600	0.68	0.68	0.50	104	17,587,000	1 : 5.48 6.31
February	..	2,712,000	21,500	0.79	0.55	0.59	103	7,131,000	1 : 1.65 1.68
March	..	2,566,000	20,800	0.81	0.65	0.62	97	5,883,000	1 : 1.31 1.47
April	..	2,667,000	21,400	0.80	0.56	0.66	101	8,968,000	1 : 2.39 3.10
May	..	2,494,000	21,300	0.86	0.62	0.55	94	5,319,000	1 : 1.15 0.34
June	..	2,424,000	20,700	0.85	0.61	0.70	92	5,413,000	1 : 1.25 0.09
Year 1937-38	..	2,525,000	20,300	0.80	0.70	0.56	96	8,008,000	1 : 2.20 23.48

TABLE II.—SEWAGE ANALYSES.

PARTS PER 100,000.	Raw Sewage.			Settled Sewage.			Filter Bed Effluent.			Total Purifica- tion Per cent.			Filtered Filter Bed Effluent.		
	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.
Settleable Solids by Volume	3,100	1,150	1,900	340	110	186	—	—	—	90.2	—	—	—	—	—
Total Solids by Weight ..	281	161	200	93	76	83	71	57	61	—	—	—	—	—	—
Loss on Ignition ..	197	103	135	56	41	48	36	21	27	—	—	—	—	—	—
Dissolved Solids ..	103	79	92	68	58	63	59	51	54	—	—	—	—	—	—
Loss on Ignition ..	69	34	44	44	25	32	31	18	23	—	—	—	—	—	—
Suspended Solids ..	180	78	108	31	10	20	12	3	7	—	—	—	—	—	—
Loss on Ignition ..	150	64	91	25	5	16	10	1	4	—	—	—	—	—	—
Ammoniacal Nitrogen ..	20.0	12.0	15.3	6.00	4.50	5.19	2.10	1.00	1.30	—	—	—	—	—	—
Albumenoid Nitrogen ..	4.40	2.40	3.20	1.20	0.70	0.89	0.38	0.10	0.25	—	—	—	—	—	—
Nitrous Nitrogen ..	Nil	Nil	Nil	Nil	Nil	Nil	0.15	0.07	0.10	—	—	—	—	—	—
Nitric Nitrogen ..	Nil	Nil	Nil	Nil	Nil	Nil	4.43	2.07	3.04	—	—	—	—	—	—
Chlorides as Chlorine ..	19.8	14.3	17.4	11.9	9.0	10.3	11.3	8.60	10.0	—	—	—	—	—	—
Oxygen consumed from N/80 Permanganate in 3 mins. ..	8.57	4.94	6.66	2.32	1.86	2.08	0.83	0.46	0.40	90.5	0.29	0.35	—	94.7	—
Oxygen consumed from N/80 Permanganate in 4 hours at 26.7°C. ..	28.1	12.7	17.5	6.72	4.54	5.27	2.22	1.48	1.74	90.1	0.79	0.92	—	94.7	—
Dissolved Oxygen absorbed in 5 days at 18.3°C. ..	142	79.9	96.0	40.0	29.8	34.5	7.02	2.09	4.24	95.6	1.78	0.85	1.14	98.8	—
" Strength " ..	—	—	265	—	—	82.2	—	—	25.1	90.5	—	—	—	—	—

WORK DONE BY INSPECTORS FOR YEAR 1st JULY, 1937—30th JUNE, 1938.

This work, under the capable management of the Chief Health Inspector, Mr. W. G. Graham, has been done as efficiently and energetically as in the past. The courtesy displayed by the inspectorial staff towards the general public deserves special mention.

In February, 1938, the Chief Health Inspector reported as follows:—

" At present the City is divided into ten inspectorial areas. Colbyn and Bailey's Muckleneuk Townships have recently been incorporated, and during the past few years much building activity has taken place in all parts of the City, also expansion in industrial area ; thus making the present districts too large for efficient control by the existing staff, and the time has now arrived when it is necessary to divide the City into *at least twelve areas* in order to provide effective control.

" A large part of the District Inspectors' time is taken up on special duties such as early morning market control, administration of Food and Drugs Act, preparing reports on premises for slum clearance, sub-economic housing, housing of unexempted Natives, mosquito control, rodent eradication, inspection of premises for licences, relieving Inspectors at the abattoir, etc.

"The present staff cannot deal with the requirements of the City, and many unhygienic conditions exist which remain unnoticed by the Department."

I am pleased to record that the Council has agreed, in its 1938/9 Estimates, to make provision for the appointment of two extra third grade Health Inspectors.

Special Inspections.

Foodstuffs Condemned.

Hares	5	Boxes, strawberries	1
Guinea fowls	53	„ cucumbers	14
Sucking pigs	1	„ bananas	5
Turkeys	1	„ custard apples	12
Dressed Fowls	696	„ cherries	15
„ ducks	21	„ spanspeks	58
„ chickens	5	„ pineapples	27
Dozen eggs	384 $\frac{1}{4}$	„ sweet melons	13
Pounds fish	1,682	„ oranges	25
„ meat	281	„ pears	106
„ boerwors	18	„ plums	1
„ mixed confectionery	10 $\frac{3}{4}$	„ figs	12
Pumpkins	220	„ marrows	1
Watermelons	500	„ mangoes	6
Squashes	80	„ green beans	35
Spanspeks	200	„ grapes	4
Egg fruit	3	„ peaches	3
Packet cheese	64	„ avocado pears	41
Carriers peaches	60	Cases, tomatoes	14
Bundles parsley	27	„ lemons	2
Crates, cauliflowers	1	„ pawpaws	162 $\frac{1}{2}$
„ turnips	1	„ apples	9
„ lettuce	1 $\frac{1}{2}$	„ oranges	1
„ carrots	1	„ grape fruit	1
Sacks, Green mealies	10	„ bananas	5
„ cauliflowers	3	„ pears	57
Trays, Custard apples	3	„ peas	5
„ Avocado pears	18	„ dried figs	1
„ pawpaws	10	Baskets, naartjes	30
„ tomatoes	28	„ peaches	53
„ strawberries	41	„ plums	3
„ peaches	207	„ pears	1
„ cucumbers	2	„ grapes	68
„ cherries	94	„ cucumbers	1
„ plums	67	„ quinces	2
„ apricots	5	Bags, potatoes	9
„ mangoes	39	„ cabbages	51
„ figs	16	„ pumpkins	6
„ pears	108	„ sweet potatoes	42
„ bringals	4	„ cauliflower	16
„ grapes	10	„ garlic	1
Pockets, oranges	149	„ green peas	14
„ grape fruits	274	„ turnips	2
„ lettuces	7	„ beans	14
„ naartjes	20	„ green mealies	34
„ lemons	124	„ cucumbers	17
„ bringals	20	„ marrows	2
„ green beans	1,009	„ squashes	8
„ limes	205	„ pickling onions	3
„ green peas	358	„ gooseberries	1
„ mixed fruits	36	„ carrots	2
„ broad beans	17	„ lemons	1
„ cucumbers	144	Tins, Vienna sausages	4
„ green mealies	32	„ anchovies in salt	7
„ marrows	39	„ pilchards	176
„ beetroot	1	„ sardines	51
„ sweet melons	5	„ kippers	3
„ pawpaws	3	„ jam	18
„ granadillas	10	„ French peas	3
„ mixed vegetables	6	„ condensed milk	65
„ chillies	8	„ curried fish	13
„ squashes	31	„ foodstuffs (mixed)	5,277
Boxes, pawpaws	37	„ fish (mixed)	381
„ apples	39 $\frac{1}{2}$	„ herrings	33
„ kumquats	1	„ salmon	4
„ naartjes	30	„ yellow peaches	9
„ limes	2	„ treacle	20
„ tomatoes	234	„ cooked hams	41
„ mulberries	2	„ tomato extract	3
„ granadillas	28	Bottles, herrings	97

Matters referred to other Departments.

(a) CITY ENGINEER:

(b) CHIEF LICENCE OFFICER:

(c) CONTROLLER OF STORES AND ESTATES:

(d) NATIVE AFFAIRS MANAGER:

Complaint <i>re</i> storage and delivery of food to Municipal Natives	1
Housing of unexempted Natives	239
Unsuitable housing of Natives	3
Complaint <i>re</i> housing of unexempted Natives	1
Unauthorised Compound	1

(e) FIRE MASTER:

Accumulations of inflammable material	6
Use of inflammable liquid by cleaners, dyers and launders in shop having wood partition wall	1
Missing handrail to stairway	1

(f) SANITARY REMOVAL DEPARTMENT:

The following Cases were taken before the Magistrate :

<i>General :</i>		No. of Cases.	No. of Convictions.	Total Fines.
Failure to comply with terms of notice	..	46	36	£88 15 0
Exposing for sale tins of unsound foodstuffs	..	10	10	49 10 0
Obstructing inspector	.. ..	1	1	5 0 0
Occupying "closed" premises	.. ..	1	1	1 0 0
Keeping of cow without permit	.. ..	5	2	4 5 0
Failure to comply with fumigation by-laws	..	3	2	11 0 0
Fly-breeding	.. .. .. ..	1	1	2 0 0
Sale of sausage containing cigarette stump	..	1	1	10 0 0
Sale of ice cream not up to bacterial standard	..	1	1	3 0 0

Dairy By-Laws :

Sale of milk not up to bacterial standard	7	7	21	0	0
Dirty and defective condition of dairy	1	1	1	0	0
Failure to wear overalls and giving inspector wrong information	1	1	1	0	0
Unlicensed sale of milk	1	1	0	10	0

Food, Drugs and Disinfectants Act :

Sale of milk deficient in non-fatty solids	20	20	71	0	0
Sale of milk deficient in fat	12	12	22	0	0
Sale of ice cream deficient in fat	7	7	25	10	0
Sale of ice cream containing preservative	2	2	2	0	0

Butchery By-Laws :

Failure to comply with By-laws and notice ..	2	2	11	0	0
Exposing unsound meat for sale and failing to wrap meat properly	1	1	16	0	0

NATIVE MEDICAL SERVICES.

This service, which was reported on fully last year at its inception, has found its place in the public health services of this City, and is now recognised as essential.

PUBLIC HEALTH PROPAGANDA.

During the year numerous public lectures were given by the Medical Officer of Health. In fact, public health propaganda has become a daily feature in the routine of the Department. The public has come to appreciate this and eagerly seeks further enlightenment in regard to health matters.

It is unnecessary to enumerate the number of instances and the different lectures given to the public during the course of the year, but it is interesting to record one particular series which was held at the Technical College under the heading of "HOLDING THE HELM OF HEALTH."

This course was conducted in co-operation with the Bureau of Adult and Visual Education, and was directed by the Medical Officer of Health.

Four of the lectures were scheduled for the month of November ; the rest followed after the summer holiday season. The series commenced on the 3rd November, 1937, and lectures were held on Wednesday nights at 8.10 at the Pretoria Technical College. Admission was free, but each entrant was requested to do his utmost to attend each of the lectures. Illustrations were with the aid of cinema, epidiascope and microscope.

The lecturers were Dr. E. H. Cluver, Secretary for Public Health ; Dr. P. J. du Toit, Director of Veterinary Services ; Dr. A. Pijper, Bacteriologist, Pretoria City Council ; Dr. I. P. Marais, Veterinary Officer, Pretoria City Council ; Mr. H. M. de Vaal, B.Sc., Municipal Chemist and Analyst ; and Dr. H. Nelson, Medical Officer of Health, Pretoria.

Schedule and Synopsis.

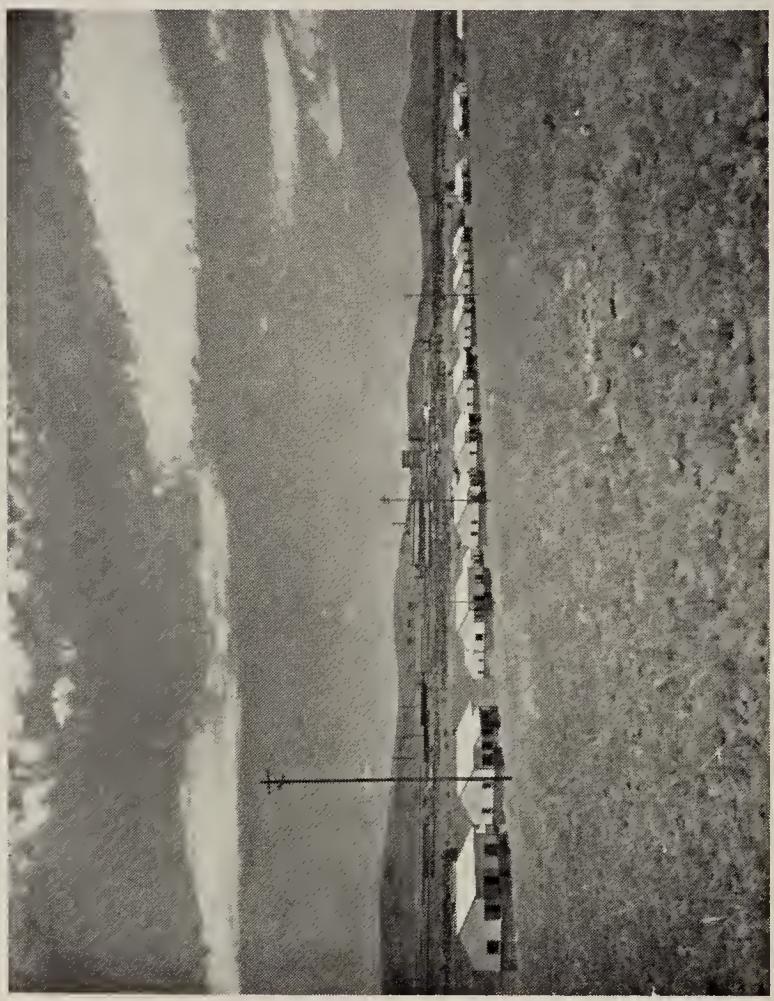
Lecture No. 1. 3rd November, 1937. DR. NELSON.	A. <i>Health Departments</i> : Organisation and functions of. B. <i>Tuberculosis</i> : The casual organism, its source, entrance and invasion. Symptoms. Remedial and control measures.
Lecture No. 2. 10th November, 1937. DR. CLUVER.	<i>Nutrition and Diet</i> : Fundamental requirements of the body. Food values, quantities and balance. Vitamins. Common fallacies in relation to diet. Nutrition and the Nation.
Lecture No. 3. 17th November, 1937. DR. DU TOIT.	<i>Diseases of Animal Transmission</i> : Some insects and ticks that transmit disease. Common diseases transmitted in this way. Parasites acquired from animals.
Lecture No. 4. 24th November, 1937. DR. PIJPER.	<i>Typhoid Fever</i> : The casual organism, its source, entrance and invasion. Remedial and control measures. Typhoid carriers.
Lecture No. 5. 9th March, 1938. DR. H. NELSON.	<i>Small-pox</i> : The nature, occurrence and significance of the disease. Its history in South Africa. Vaccination, its history, action and purpose.



5. Proclamation Hill. View looking south-west, showing roads made, electric lighting, fencing, trees planted and gardens commenced (June, 1938).



6. Proclamation Hill. General view looking west over Power Station dam, showing progress of township (June, 1938).



3. Proclamation Hill. General view looking towards Steelworks (12.11.37).



4. Proclamation Hill. Road-making in progress (January, 1938).



1. Proclamation Hill. Site before building operations commenced, looking from top of hill due South over Steelworks.



2. Proclamation Hill. First houses nearing completion.

Lecture No. 6.
23rd March, 1938.
MR. H. M. DE VAAL,
Municipal Chemist
and Analyst.

Lecture No. 7.
30th March, 1938.
DR. I. P. MARAIS.
Municipal Veterinary
Officer.

Lecture No. 8.
6th April, 1938.
DR. H. NELSON.

Lecture No. 9.
13th April, 1938.
DR. H. NELSON.

Sewerage: Problems and methods of sewerage disposal under rural and city conditions. Principles of a modern disposal plant. An interesting story of one of the most important public services.

Dairies and Milk Supply: Necessity of hygiene in connection with dairy products. Control in handling and distributing milk, butter, ice cream, etc. Nature of regulations and inspections.

Venereal Disease: This lecture open only to women: Difference between syphilis and gonorrhoea. Factors pertaining to infection. Prevalence of the disease. Significance and effects. Remedial and control measures. Common fallacies. Quack treatment. The duty of the individual in helping to eradicate the disease.

Venereal Disease: This lecture open only to men.—Essentially the same lecture as No. 8.

Approximately 1,600 people attended.

The patronage of those who could retail the knowledge gained at the lectures to others was sought and for this reason persons attending were required to sign an application form, undertaking to attend the whole series and, if possible, to take notes and impart the knowledge to others.

The thanks of the Department are extended to the various lecturers.

PHYSICAL EDUCATION.

The Department was informed during the course of the year that certain sums of money had been allocated to the five Education Departments in the Union to assist them with subsidies for institutions in connection with physical education under the National Physical Education scheme.

The Pretoria Technical College made application under this scheme. The Health Department submitted proposals to the Council with the suggestion that consideration be given to the application under this scheme for subsidies to institutions catering for physical education in Pretoria.

It is hoped that through co-operation with the local physical training centres and the Health Department, this valuable asset to national fitness will be suitably subsidised.

EUROPEAN HOUSING.

During the year approximately 468 applications were received under this Sub-economic Housing Scheme: from these suitable tenants were selected for the houses available, and with few exceptions, the occupiers appear to be satisfied and happy in their new homes. A few have already established vegetable gardens. The Council has agreed to provide shrubs, ornamental trees and creepers free of charge.

(1) *Sub-economic Houses.*

Of the one hundred Sub-economic houses erected during the year, those at Proclamation Hill and New Muckleneuk have all been occupied. At Innesdale, twelve newly-erected houses have been recommended for suitable applicants who will take occupation at an early date.

The Council has decided to erect a further two hundred sub-economic houses which will be distributed as follows:—

- 135 at Proclamation Hill.
- 20 at New Muckleneuk.
- 45 at Innesdale.

(2) *Economic Housing "Loan Scheme."*

A further ten persons have availed themselves of this loan during the year, bringing the total up to twenty.

(3) *Economic Housing Scheme.*

As yet nothing has been done in connection with this Scheme.

Housing conditions have improved considerably throughout the City as compared with last year, owing chiefly to the amount of new dwellings which have been built by private enterprise as will be seen from the following figures :—

BUILDINGS ERECTED BY PRIVATE ENTERPRISE.
1937-1938.

Dwellings	695
Flats	20
Additions and alterations to dwellings	622

The Council has now decided to appoint a Housing Manageress who will assist the Department in the control of the housing schemes, the successful rehousing of persons and the clearance of slums.

A Fumigator-Handyman is also being appointed. His duties will be to attend to minor repairs and to control vermin in and around the Council's houses.

The net rents of these houses are as follows :—

Type.	Cost.	Rental.
One-roomed	£477 18 6	£2 14s. 0d. per month plus 9s. per month deposit on water and light.
Two-roomed	£549 18 6	£3 per month plus 9s. deposit on water and light.
Three-roomed	£603 6 6	£3 5s. 0d. per month plus 9s. per month deposit on water and light.

These rents will, however, be reduced in the near future.

SLUMS ACT.

The Department has now commenced to deal with properties under this Act and it is hoped that with the increased and better housing conditions now available, a marked improvement will result.

Eight properties are being dealt with and concern the housing of 60 families and 30 single persons. Eight properties, at present let as accommodation for 60 families, and 30 single rooms, are being dealt with.

NON-EUROPEAN HOUSING.

One of the major problems of this Department is the suitable housing of non-Europeans. This problem will be largely solved by the completion of the Council's new Native Location and Village on the townlands at Pretoria West, but, even with the aid of sub-economic building loans from the Government, the task of housing the Natives in the new location is tremendously impeded by the very low and entirely sub-economic wage rate of the urban Bantu throughout the Union. Not only will the dwellings have to be erected on a sub-economic basis, but the rents and rates imposed upon the Native and the transport fares to and from the locations will have to be on a sub-economic basis.

Good progress has been made with the establishment of the new Native Location during the year under review ; the site has been laid out on model lines embodying all the best features of the internal development layout, while retaining a few of the best features of the gridiron layout. It contains sites for three recreation grounds and eleven schools, as well as provisions for trading and administrative centres, and a polyclinic health and social unit. When completed, the scheme will embrace over 3,000 occupied Native dwellings at a total cost of about £700,000.

The polyclinic health and social unit is intended to include a crèche, a nursery school, a kindergarten, a hall and a polyclinic.

The polyclinic will be for the treatment of venereal diseases and tuberculosis, and will serve as an ordinary Out-Patients' Department. Child welfare, ante-natal and post-natal and dental clinics will also be conducted here. Together with this, it is intended to conduct a course for the training of Native girls between the ages of fifteen and twenty as nurse maids. This training is to include amongst other things :—

Care of the child from the first month up to the time it leaves the kindergarten ; feeding of infants and older children ; proper clothing ; general hygiene and cleanliness ; management ; sterilisation of milk bottles ; sterilisation of milk ; the value of breast feeding ; how children should be breastfed ; methods of cooking ; the weaning of the child ; the growth of the child ; the value of vitamins ; the child's needs at different ages ; lectures in hygiene and in diseases of infants and general infectious diseases.

After attending this class, the trainees will be required to write an examination and, if successful, will be recommended and placed in domestic service as child nurses. It is anticipated that there will be a great demand for girls having been trained in this manner.

The Health Committee approved of the whole scheme in principle. Representations are being made to the Social Welfare Department of the Union, Transvaal Education Department, Union Health Department, and Native Affairs Department for further financial support in this connection.

The Bantu Welfare Trust has already donated a sum of £100 in connection with the proposed social unit.

In the building of this new location, water-borne sewerage is to be installed throughout. The sewerage and water mains have already been constructed and carried to the site.

The process of reticulation of these services to individual stands is now in progress. Nine specimens of model dwellings approved by the Central Housing Board are in process of erection, various types of materials being used. When completed, these experimental dwellings will be carefully studied and the most suitable types selected. It is expected that the first several hundred dwellings at the new Native Location will be completed during the next financial year.

The overcrowding of Bantu in the Council's locations at Marabas and Bantule has been somewhat relieved during the year. This relief has been effected mainly through the rigid control of Native lodgers through administrative regulations under the Natives (Urban Areas) Act. It was felt that however irksome these lodgers' regulations might be, for the time being they are an indispensable measure from the health point of view. Similarly, the overcrowding in the Council's Native Compound has been relieved during the year by the establishment of a temporary compound housing nearly a thousand Natives. This temporary compound has also been established on the best possible lines. They consist of roomy all-iron huts with bituminous floors. Each of these temporary huts is lit by electricity, and, ample washing, bathing and sanitary conveniences are provided. A radio is in process of being installed. The housing of Native employees in the European quarter of the town is also being controlled by administrative and health regulations promulgated during the year under review.

The non-European population of the Council's locations and bazaar is, at the present moment, as follows :—

(1) ASIATIC BAZAAR :

(a)	Number of stands	305
(b)	Number of dwellings	250
(c)	Estimated population on the 30th June, 1937	2,870
(d)	Average number of persons per dwelling	11·4

(2) CAPE COLOURED LOCATION :

(a)	Number of stands and dwellings	168
(b)	Estimated population at 30th June, 1937	2,850
(c)	Average number of persons per stand	17

(3) MUNICIPAL NATIVE LOCATIONS (MARABAS, BANTULE AND HOVE'S GROUND) :

(a)	Total number of dwellings	857
(b)	Total Native population	11,200
(c)	Average number of persons per dwelling	13·1

In Marabas Location there are still a few dwellings where seventeen persons are housed in four rooms. The sanitary conditions are, however, as far as possible, kept fairly satisfactorily through the unceasing vigilance and efforts of the Health Department.

During the year under review, the scavenging services in the locations have been considerably speeded up and the streets and stands are now kept clear of all refuse. Bantule is a particularly clean location.

The behaviour of the location inhabitants during the year has been good. There has not been a single case of major crime or serious breach of statutory law.

Since my last Report the Council has appointed Mr. J. R. Brent as Native and Asiatic Affairs Manager.

In Mr. Brent we have a very active and energetic manager who has a clear conception of the health requirements of the non-European population. His services will do much to improve health conditions amongst this section of the community.

For the compilation of these figures and the careful manner in which they were drawn up, I am grateful to the Senior Clerk, Mr. L. Drysdale.

Table No. 1.

BIRTHS : ALL RACES, FOR THE YEAR ENDING 30TH JUNE, 1938.

EUROPEAN.												NATIVE.												ASIATIC.												EURAFRICAN.											
	Legitimate.	Illegitimate.	Males.	Females.																																											
1937 July ..	44	45	1	—	5	7	2	—	5	1	5	3	—	—	1	—	—	4	1	—	—	2	2	—	—	2	1	1	1	1	1																
August ..	80	76	5	—	3	4	2	—	3	4	12	7	—	—	2	—	—	4	4	—	—	2	2	—	—	1	1	1	1	1	1																
September ..	89	58	1	2	11	5	3	—	6	9	9	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
October ..	74	69	2	1	5	5	3	—	1	4	6	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
November ..	59	52	1	1	5	5	2	—	4	7	9	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
December ..	96	60	—	2	7	8	2	—	8	7	8	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
1938 January ..	68	46	2	—	2	8	3	—	8	5	8	5	—	—	1	—	—	4	3	—	—	2	2	—	—	2	2	—	—	2	2																
February ..	86	67	—	1	1	4	3	—	7	6	11	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
March ..	72	55	1	—	8	1	3	—	3	4	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
April ..	54	61	1	1	6	6	5	—	5	2	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
May ..	81	88	2	2	10	12	9	—	7	3	7	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
June ..	98	86	2	1	6	5	5	—	5	5	5	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
TOTALS ..	901	763	18	17	79	61	52	—	53	77	72	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
STILLBIRTHS (RESIDENT).																																															
	Europeans.	Non-Europeans.	Males.	Females.																																											
1937 July	3	1	1	1	1	1	1	1	1	3	15	6	15	6	1	1	2	2	18	18	7	7	10	10	10	10	10	10	10	10															
August	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—															
September	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
October	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
November	1	—	1	—	2	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
December	1	—	1	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
1938 January	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—															
February	1	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—															
March	—	—	1	—	2	—	2	—	2	—	3	—	14	14	1	1	12	12	10	10	10	10	10	10	10	10	10	10	10																
April	2	—	2	—	2	—	2	—	2	—	3	—	14	14	1	1	18	18	18	18	18	18	18	18	18	18	18	18	18																
May	1	—	6	—	1	—	1	—	1	—	1	—	13	13	1	1	13	13	13	13	13	13	13	13	13	13	13	13	13	13															
June	2	—	2	—	3	—	2	—	2	—	3	—	14	14	2	2	20	20	28	28	28	28	28	28	28	28	28	28	28	28															
TOTALS	14	—	24	—	18	—	23	—	182	—	157	—	55	55	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53														

Table No. 2.
DEATHS OF EUROPEAN CHILDREN UNDER FIVE YEARS OF AGE FOR THE YEAR ENDED 30th JUNE, 1938.

	24 hours and under.	Over 24 hrs. to 1 wk.	Over 1 week. to 1 mth.	Over 1 mth. to 3 mths.	Over 3 mths. to 6 mths.	Over 6 mths. to 12 mths.	Total over 1 year to 2 yrs.	Infantile Mortality.	Total	Over 3 years to 4 yrs.	Over 4 years to 5 yrs.	Total under 5 years.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Whooping Cough
Diphtheria
Influenza
Septicaemia
Other diseases of the nervous system
Anaemia and Chlorosis
Diseases of the Heart
Bronchitis acute
Broncho Pneumonia
Pneumonia Lobar
Other diseases of Respiratory system
Diarrhoea (under 2 years)
Diarrhoea (over 2 years)
Intestinal Obstruction
Other diseases of the intestines
Diseases of the Kidneys and Adnexa
Nephritis acute
Diseases of the Skin
Congenital Malformation of Heart
Congenital Debility
Prematurity
Injury at Birth
Other diseases of Early Infancy
Accidental burns
Homicide
MALES	14	..	..	11	..	..	..	..	..	..
FEMALES	14	..	..	5	..	..	..	..	..	..

Table No. 3.
DEATHS OF EUROPEANS FIVE YEARS OF AGE AND OVER WITHIN THE MUNICIPALITY FOR THE
YEAR ENDED 30th JUNE, 1938.

	5-10	-15	-20	-25	-30	-40	-50	-60	-70	-80	Over 80	years. M. F.	TOTAL. Males. Females.											
Infectious and Parasitic Diseases	..	2	2	..	1	1	4	1	2	3	2	5	1	1	1	1	2	—	1	—	20	10	20	
Malignant and other tumours	
Diseases of nutrition, of Endocrine glands and other general diseases	6	
Diseases of blood and blood-forming organs	1	
Diseases of nervous system and sense organs	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	
Diseases of circulatory system	
Diseases of respiratory system	
Diseases of the digestive organs systems	
Non-venereal diseases of the genito urinary system and adnexa	
Diseases of pregnancy and puerperal state	
Diseases of skin and cellular tissue	
Diseases of bones and organs of locomotion	
Old age	
Suicide	
Deaths from violence and accidents	
Ill-defined diseases	
TOTAL MALES	6	—	1	—	10	—	15	—	15	—	12	—	25	—	54	—	70	—	286
TOTAL FEMALES	4	—	5	—	3	—	4	—	6	—	6	—	15	—	36	—	35	—	24
																							182	

Figures for Euraficans and Asiatics are not tabulated as the numbers are small and have been dealt with in the general summary of the causes of death.

Table No. 4.
DEATHS OF NATIVES WITHIN THE MUNICIPALITY FOR THE YEAR ENDED 30th JUNE, 1938.

		-1	-5	-10	-15	-20	-25	-30	-40	-50	-60	-70	-80	Over years. M. F.	years. M. F.	Over years. M. F.	TOTAL. Males. Females.								
Infectious and	Parasitic	..	1	4	2	2	2	—	—	1	4	3	4	2	5	5	11	1	3	—	2	—	1	—	
diseases	Diseases of nutrition	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33	18	
	Malignant other tumours	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4
	Diseases of the blood and	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	blood-forming organs	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diseases of the nervous sys-	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	tem and sense organs	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Diseases of circulatory	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	system	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diseases of respiratory	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	system	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diseases of the digestive	..	20	24	17	14	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
	system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
	Non-venereal diseases of	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	the genito urinary sys-	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	tem and adnexa	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diseases of pregnancy and	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	puerperal state	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Diseases of skin and cellu-	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	lar tissue	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Diseases of bones and	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	organs of locomotion	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Congenital malformations	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	and congenital debility	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
	Prematurity	..	..	3	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Injury at birth	..	..	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
	Other diseases of early	..	..	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	infancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
	Old age	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
	Homicide	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Accidental burns	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
	Accident	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
	Sudden death and ill-	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25
	defined causes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
																								2	
	TOTAL MALES	..	51	—	35	—	5	—	4	—	7	—	14	—	26	—	27	—	42	—	18	—	11	—	5
	TOTAL FEMALES	..	62	—	35	—	5	—	2	—	4	—	6	—	6	—	5	—	14	—	9	—	3	—	251
																								148	

INFANTILE MORTALITY : Causes of Death and Mortality Rates in the Districts for the Year ended 30th June, 1938.

	Infectious Diseases. M. F.	Diarrhoeal Diseases. M. F.	Bronchitis Pneumonia. M. F.	Congenital Causes. M. F.	Other Diseases. M. F.	Prematurity. M. F.	Total Deaths. M. F.	Total Births. M. F.	Mortality Rates, per 1,000 live Births. M. F.	Total Rate.				
Central Area	7 4	6 7	2 4	7 7	5 7	27 29	268 228	100.75 59.7			
Pretoria West	— —	— —	1 4	— —	— —	7 1	8 6	134 108	59.70 55.55		
Leper and Mental Hospitals, Prison and Defence Reserves	— —	— —	— —	— —	— —	— —	16 7	0 0	0 0		
Railway Reserve	— —	— —	— —	— —	— —	1 1	1 1	20 16	50.0 62.5		
Roberts Heights	— —	— —	— —	— —	— —	1 —	1 —	21 13	47.61 —		
Eastern Suburbs	— —	— —	— —	— —	3 —	6 —	3 1	12 2	249 191	48.03 31.81	
Northern Suburbs	— —	— —	1 3	5 5	— 1	1 4	8 13	202 216	39.60 61.85	50.24	
TOTALS	— —	— —	8 8	12 16	5 6	14 7	18 14	57 51	920 779	61.96 65.46	63.92

INFANTILE MORTALITY : ALL NON-EUROPEAN RACES : District Incidence for the Year ended 30th June, 1938.

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	Infectious Diseases. M. F.	Diarrhoeal Diseases. M. F.	Bronchitis Pneumonia. M. F.	Congenital Causes. M. F.	Other Diseases. M. F.	Prematurity. M. F.	Total Deaths. M. F.	Total Births, M. F.	Mortality Rates. per 1,000 live Births. M. F.	Total Rate.
NATIVE :										
Marabas	1 1	7 5	11 14	— —	3 3	60 58	— —	— 398.30
Bantule	3 1	1 6	13 6	1 2	3 3	24 24	— —	— 716.42
Town	— —	4 2	2 —	— —	1 1	5 9	— —	— 303.57
TOTAL NATIVE	4 2	12 13	26 20	1 2	7 7	5 13	55 57	126 115 436.51 495.65 464.73
ASIATIC :										
Location	— —	1 2	3 2	— —	1 —	2 2	7 6	— —
Town	— —	2 —	— —	— —	— —	1 —	3 —	— —
TOTAL ASIATIC	— —	3 2	3 2	— —	1 —	3 —	10 6	81 76 123.45 78.94 101.91
EURAFRICAN :										
Location	3 1	2 1	2 1	— —	— —	2 —	9 4	— —
Town	— —	1 1	1 1	— —	— —	1 —	3 1	— —
TOTAL EURAFRICAN	3 1	3 2	3 2	— —	— —	1 —	2 —	12 5	47 33	255.31 151.51 212.5
ALL NON-EUROPEAN :										
Locations	1 2	11 14	29 24	7 3	7 6	7 10	62 59	— —
Town	— —	7 3	3 —	— —	2 1	3 5	15 9	— —
TOTAL NON-EUROPEAN	..	1 2	18 17	32 24	7 3	9 7	10 15	77 68	254 224 303.15 303.57	303.35

Table No. 7.
DEATHS IN INSTITUTIONS OF PERSONS NOT RESIDENT IN PRETORIA FOR THE YEAR ENDED 30th JUNE, 1938.

	0-1 Year. M. F.		1-5 Years. M. F.		5-10 Years. M. F.		10-20 Years. M. F.		20-40 Years. M. F.		Over 40 Years. M. F.		Total Europeans. M. F.	Total Non- Europeans. M. F.								
PRETORIA AND OTHER HOSPITALS:																						
European	16	8	4	6	1	—	5	4	15	11	48	34	89	63	—	—	
Non-European	10	14	19	9	5	2	8	8	64	28	71	23	—	—	179	83	
MENTAL HOSPITAL:															—		—		—			
European	1	—	4	3	27	15	32	18
Non-European	3	1	13	6	27	9	—	—
LEPER ASYLUM:															—		—		—		—	
European	2	1	3	2	17	9	5	5
Non-European	1	—	3	3	36	10	—	—
PRISONS:															—		—		—		—	
European	—	—	—	1	—	3	—	4
Non-European	—	—	25	—	—	4	—	—
VISITORS:															—		—		—		—	
European	1	—	2	—	2	1	5	7
Non-European	1	—	1	—	2	2	1	1
TOTAL: EUROPEAN															17		10		5		6	
TOTAL: NON-EUROPEAN															..		..		..		..
															11		16		22		10	
															3		17		11		121	
															3		8		45		141	
															
															11		..		..		..
															
															
															
															
															
															
															
															
															
															
															
															

NOTIFICATION OF INFECTIOUS DISEASES : Local Cases : All Races : for the Year ended 30th June, 1938.

Table No. 9.
NOTIFICATION OF INFECTIOUS DISEASES. Imported Cases : All Races : for the Year ended 30th June, 1938.

Table No. 10.
 DISTRICT DISTRIBUTION OF NOTIFIED INFECTIOUS DISEASES : ALL RACES : For the Year ended
 30th June, 1938.

Table No. 11.

**SEASONAL INCIDENCE OF INFECTIOUS DISEASES FOR THE YEAR ENDED
30th JUNE, 1938.**

